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Scope Patterns

REFER TO SAFETY GUIDELINES

SAFETY NOTICE: ANY PERSON ATTEMPTING TO SERVICE THIS CHASSIS MUST FAMILIARIZE HIMSELF WITH THE CHASSIS AND BE AWARE OF THE NECESSARY SAFETY PRECAUTIONS TO BE USED WHEN SERVICING ELECTRONIC EQUIPMENT CONTAINING HIGH VOLTAGES.

CAUTION: USE A SEPARATE ISOLATION TRANSFORMER FOR THIS UNIT WHEN SERVICING

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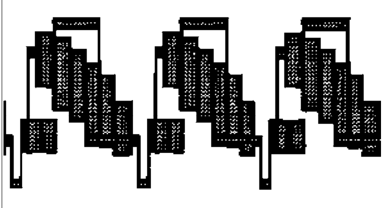
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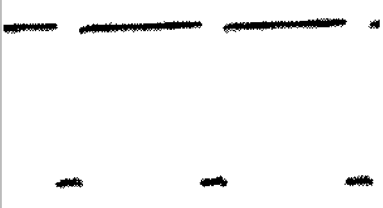
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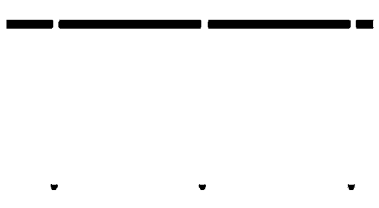
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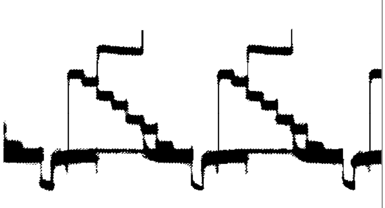
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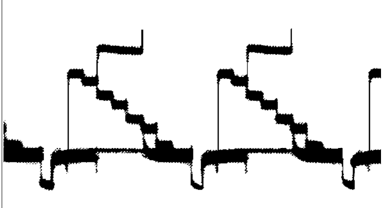
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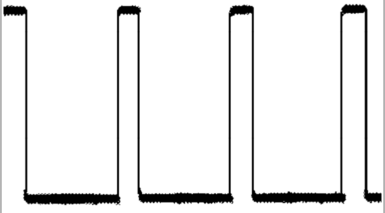
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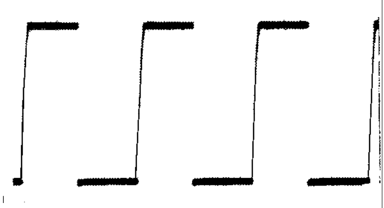
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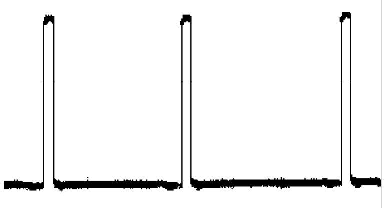
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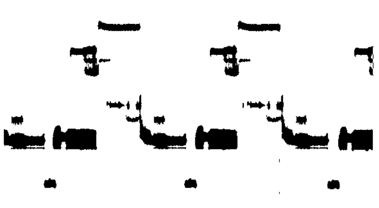
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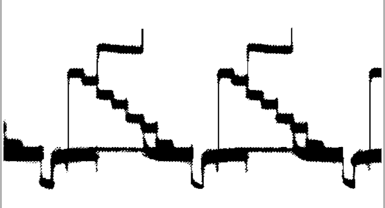
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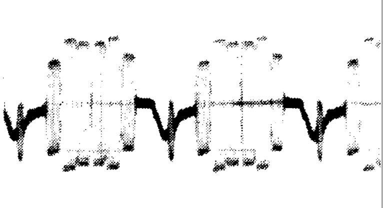
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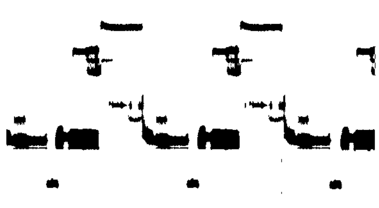
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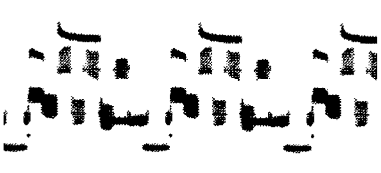
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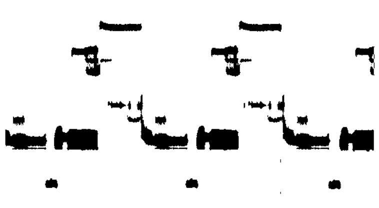
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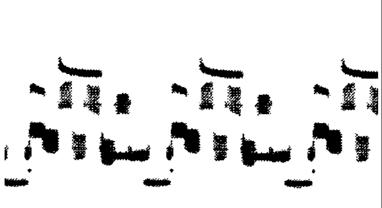
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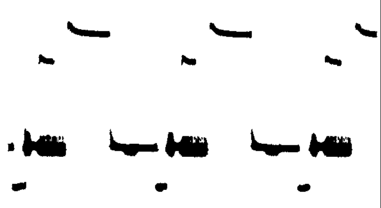
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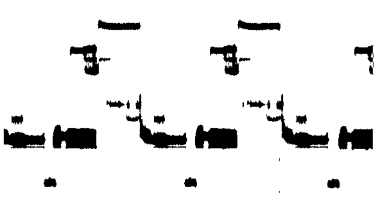
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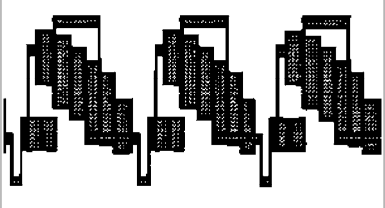
4 Vp-p
20 usec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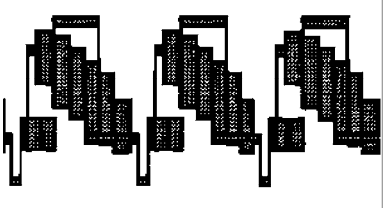
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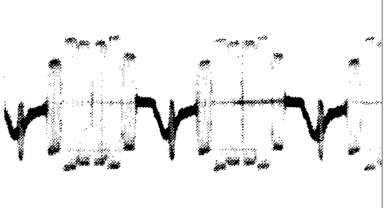
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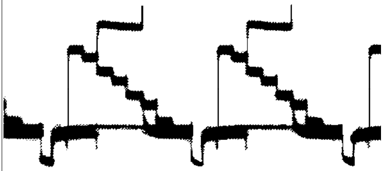
20 usec



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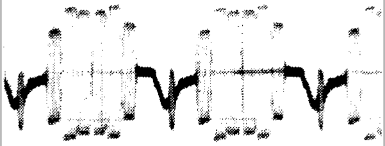

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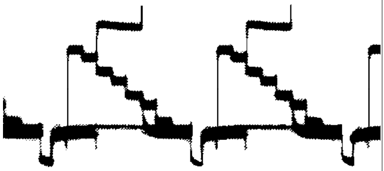

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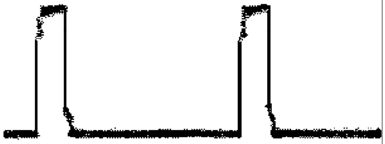

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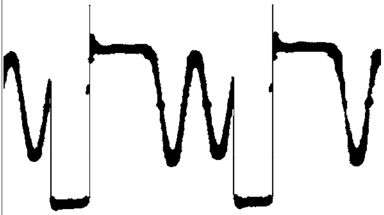
13 Vp-p



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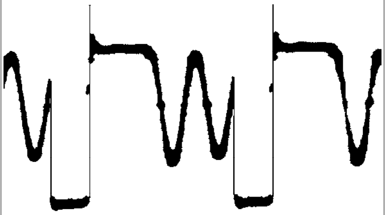
1280 Vp-p



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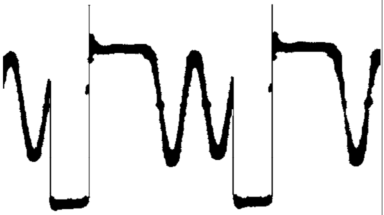
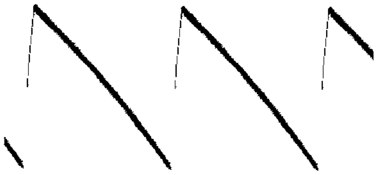
220 Vp-p



3C
310 Vp-p



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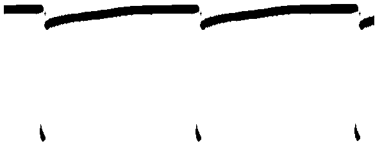

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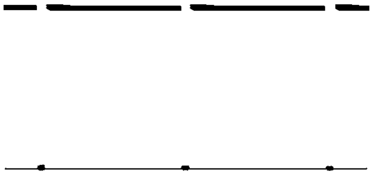

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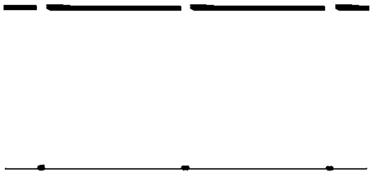

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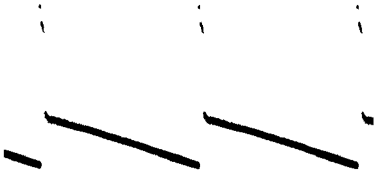
3 Vp-p



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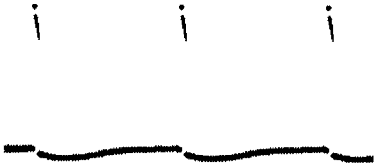

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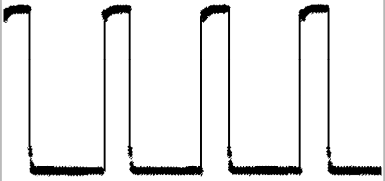
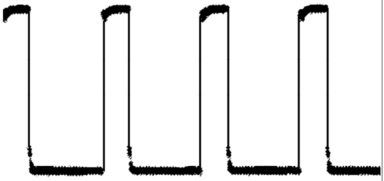


10A
25 Vp-p



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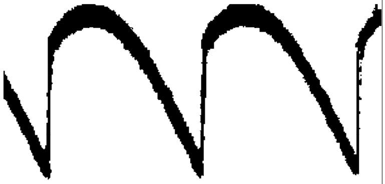
29 Vp-p



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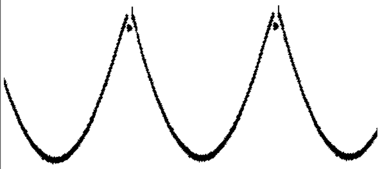
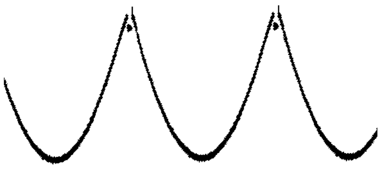


12B
10 Vp-p
5 msec



12A
400 Vp-p
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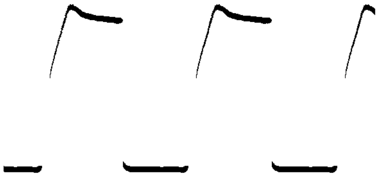
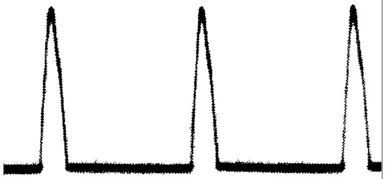


13
130 Vp-p
20 usec



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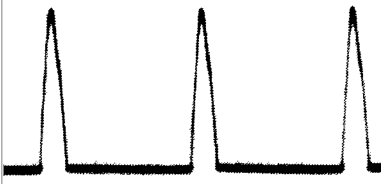
950 Vp-p
20 usec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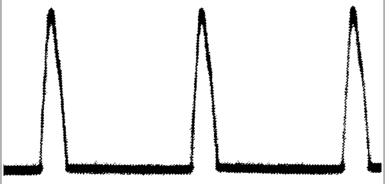
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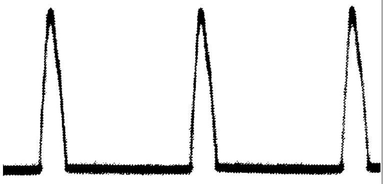
112 Vp-p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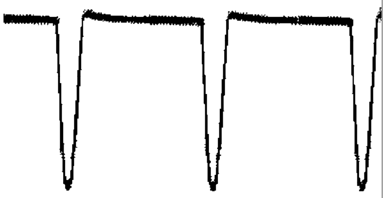
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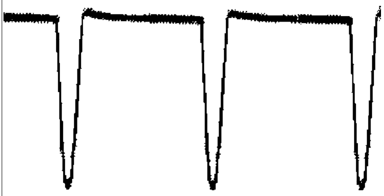
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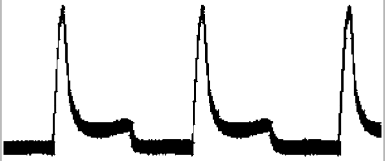
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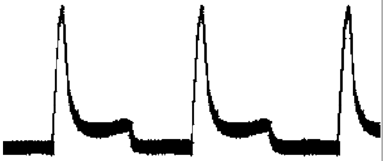
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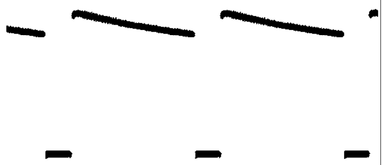
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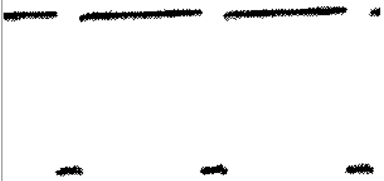
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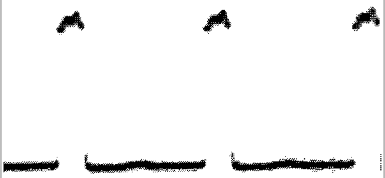
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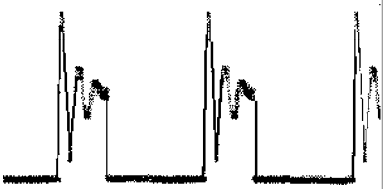
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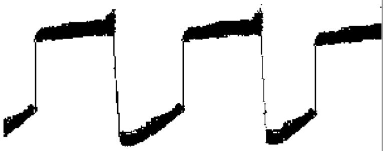
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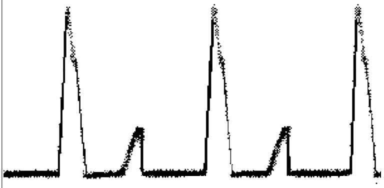
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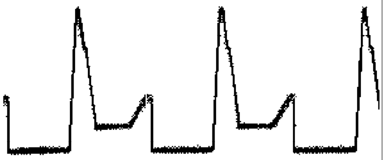
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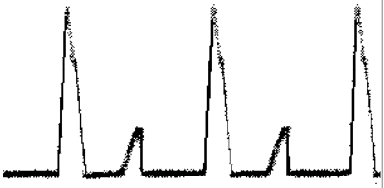
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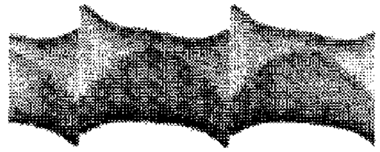
38 Vp-p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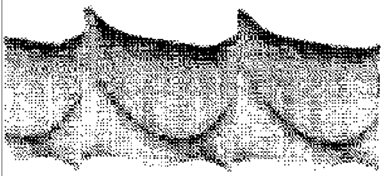
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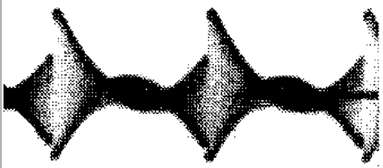
5 msec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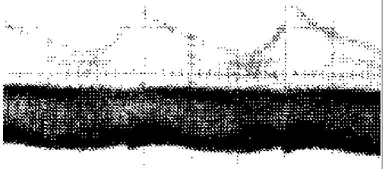
5 msec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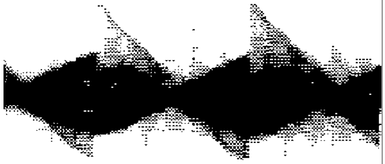
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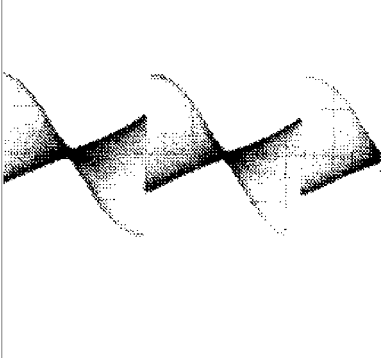
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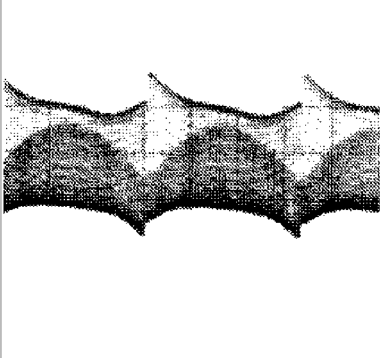
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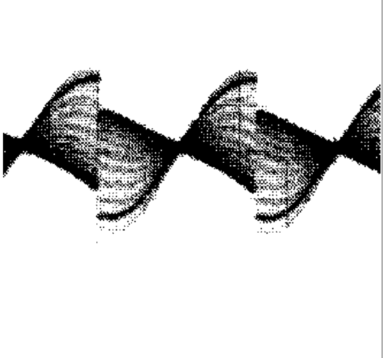
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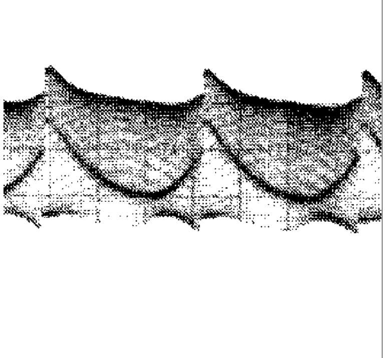
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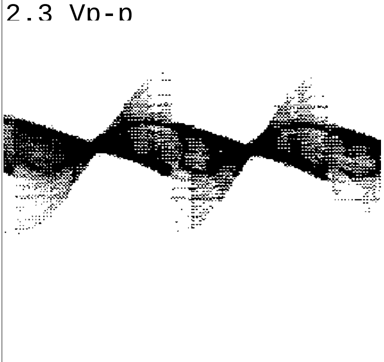
1 Vp-p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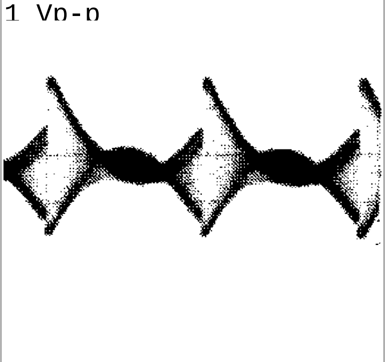
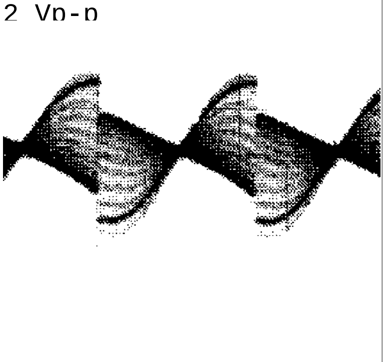
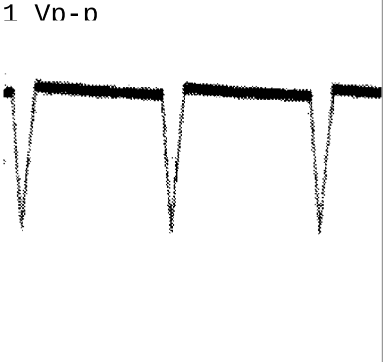
2.4 Vp-p


11
700 mVp-p


12
1.5 Vp-p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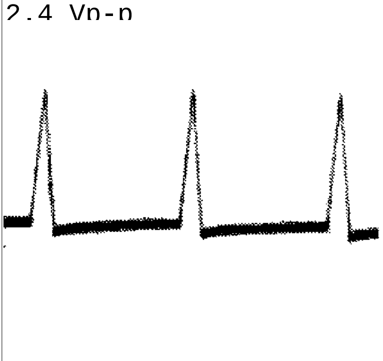
1.6 Vp-p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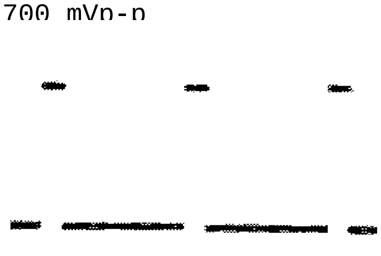
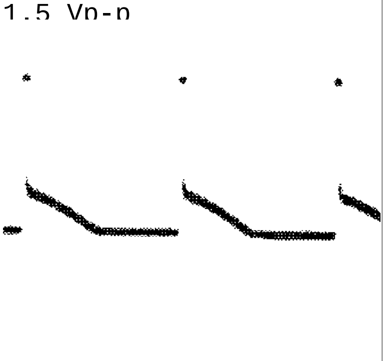

15
5 Vp-p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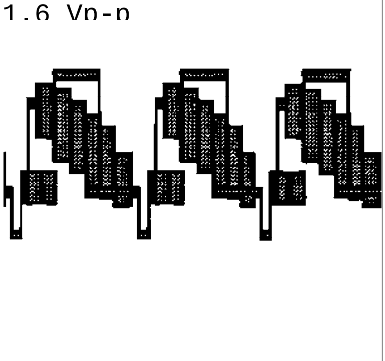
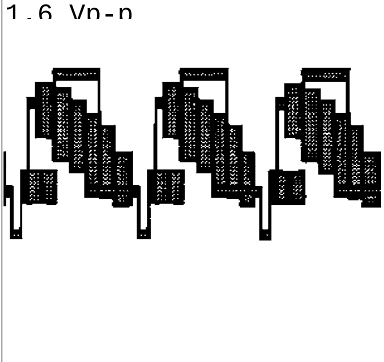
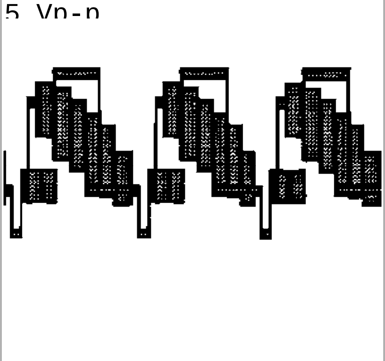
5 Vp-p


1
2 Vp-p


2B
1.8 Vp-p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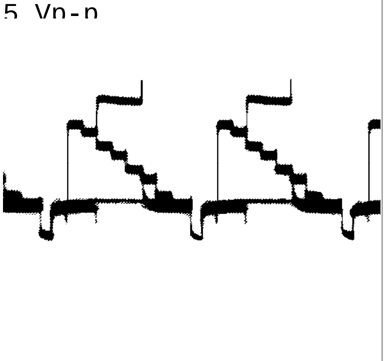
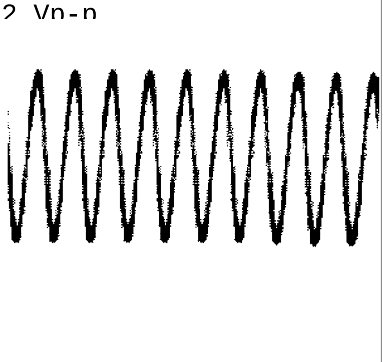

3
1.75 Vp-p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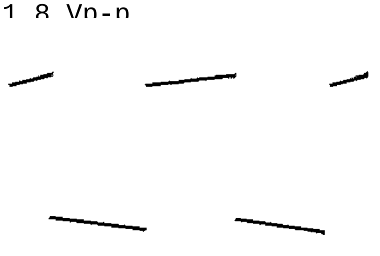
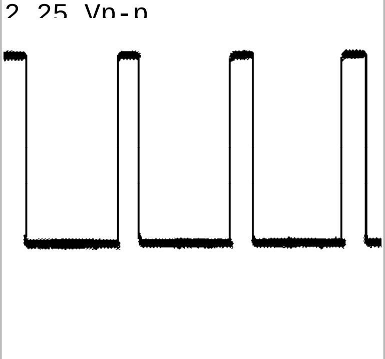
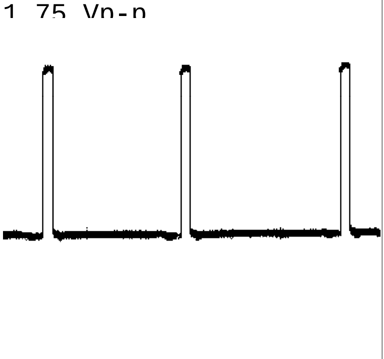
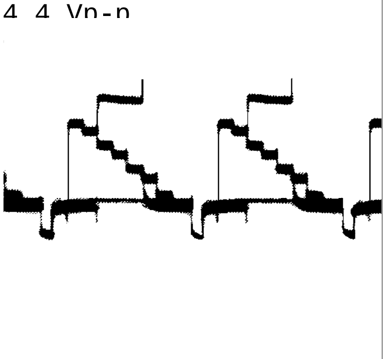
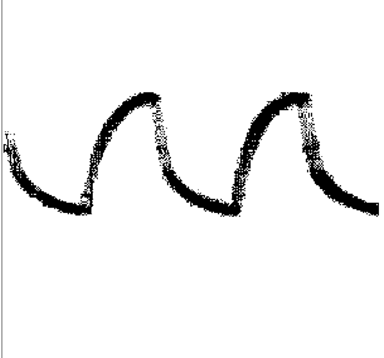
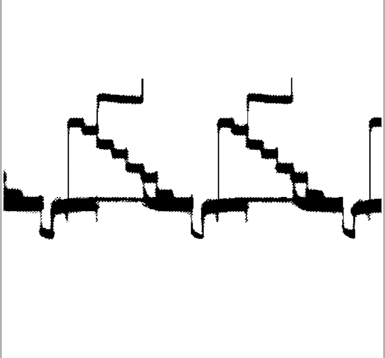

5
5 Vp-p
0.1usec


6
4.75 Vp-p
20 usec


7
5 Vp-p
5 msec


8
1.4 Vp-p
20 usec


9
450 mVp-p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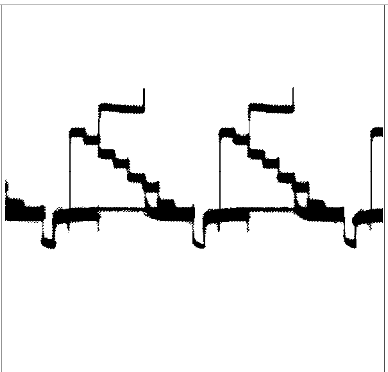
440 mVp-p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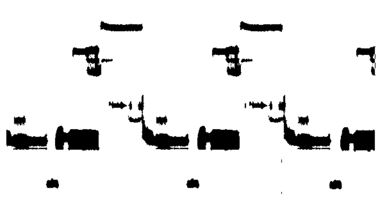
450 mVp-p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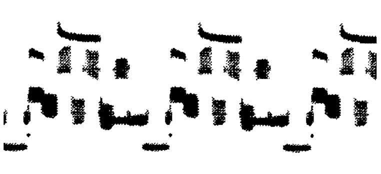
3 Vp-p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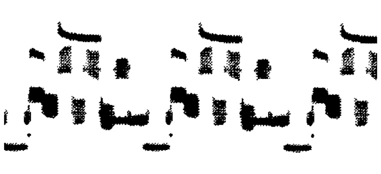
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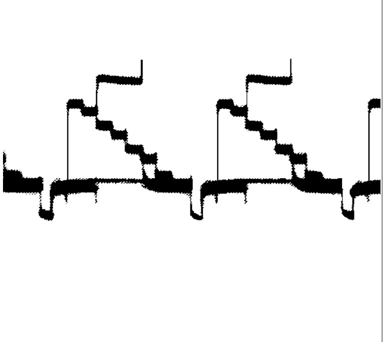
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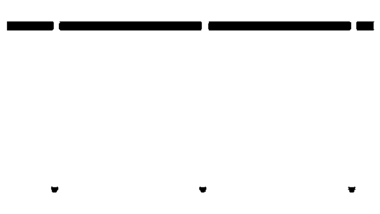
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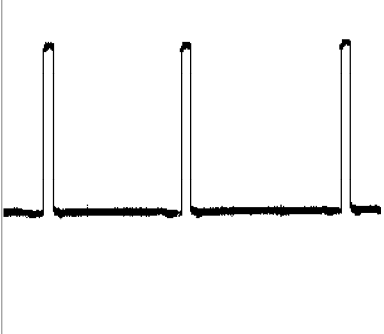
44 Vp-p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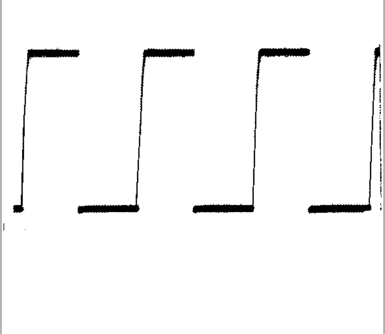
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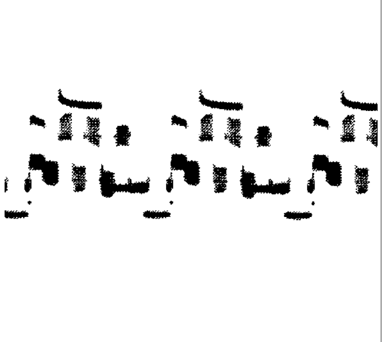
44 Vp-p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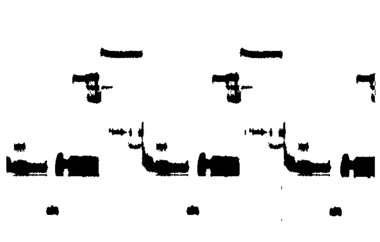
4 Vp-p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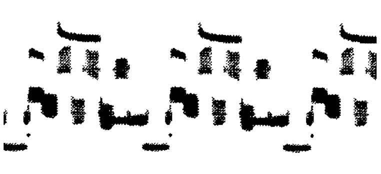
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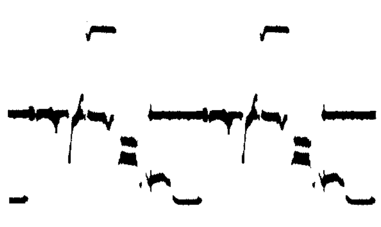
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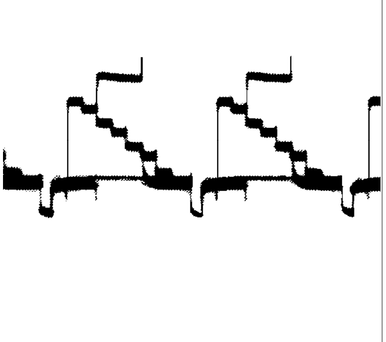
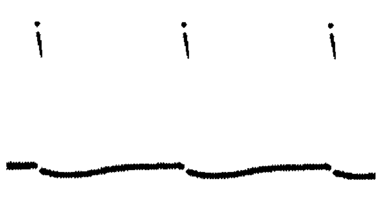
3 Vp-p


23
1.7 Vp-p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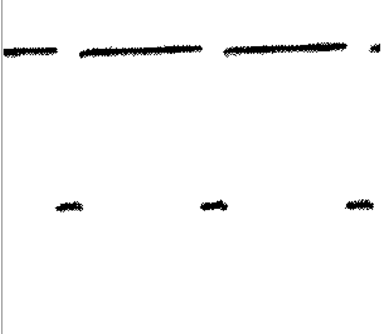
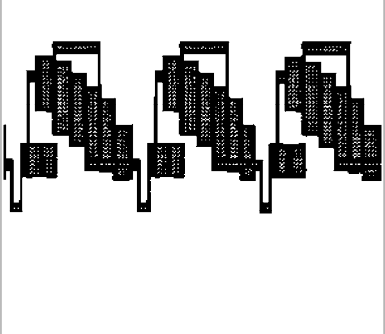
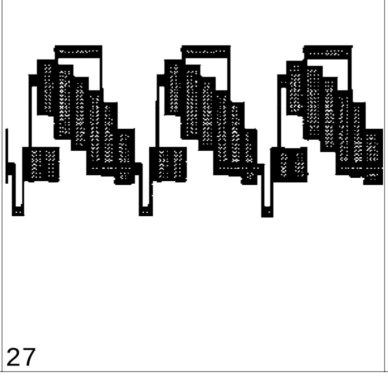
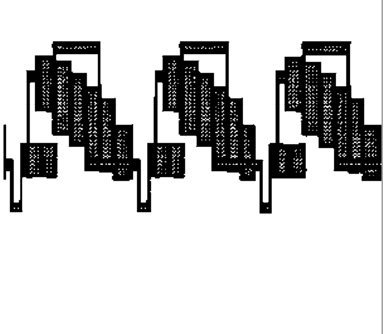
5.5 Vp-p


25
5.2 Vp-p
20 usec


26
1.75 Vp-p
20 usec


27
640 Vp-p
20 usec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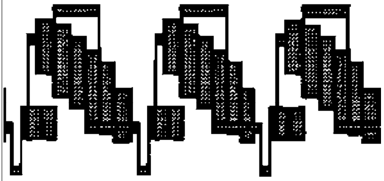
950 Vp-p
20 usec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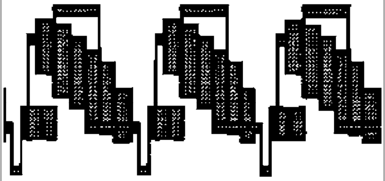
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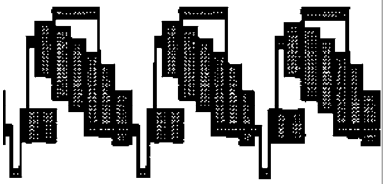
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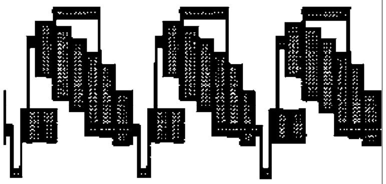
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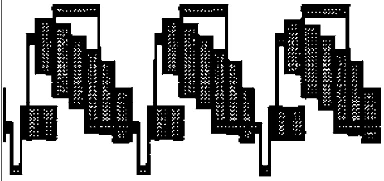
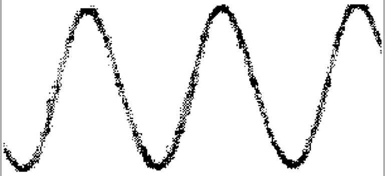

32B
1.7 Vp-p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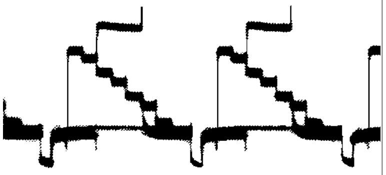
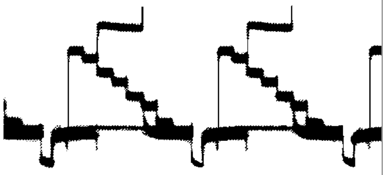
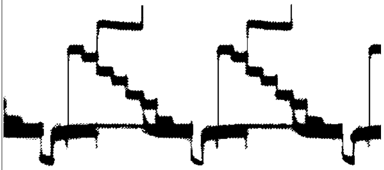
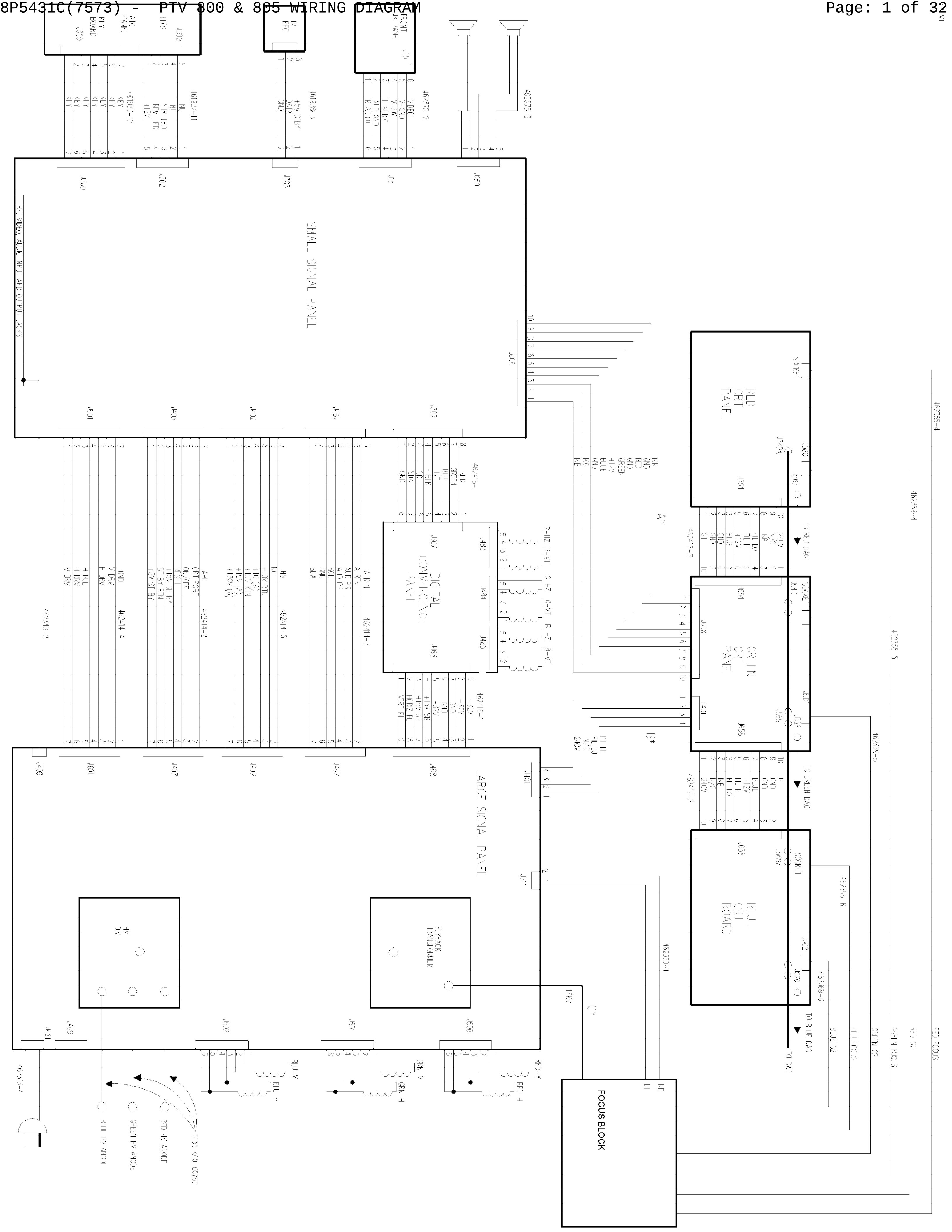
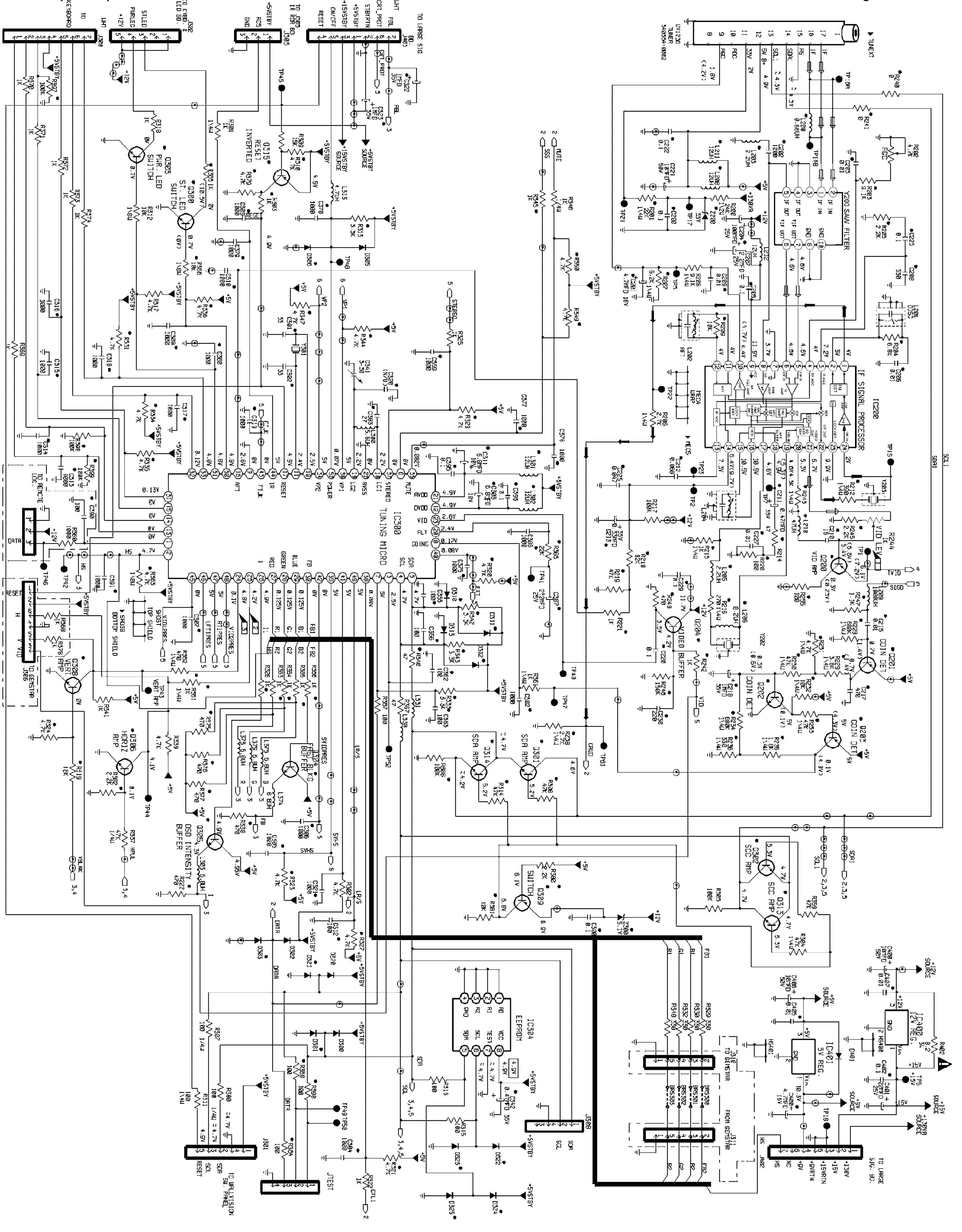
1.2 Vp-p
0.1usec

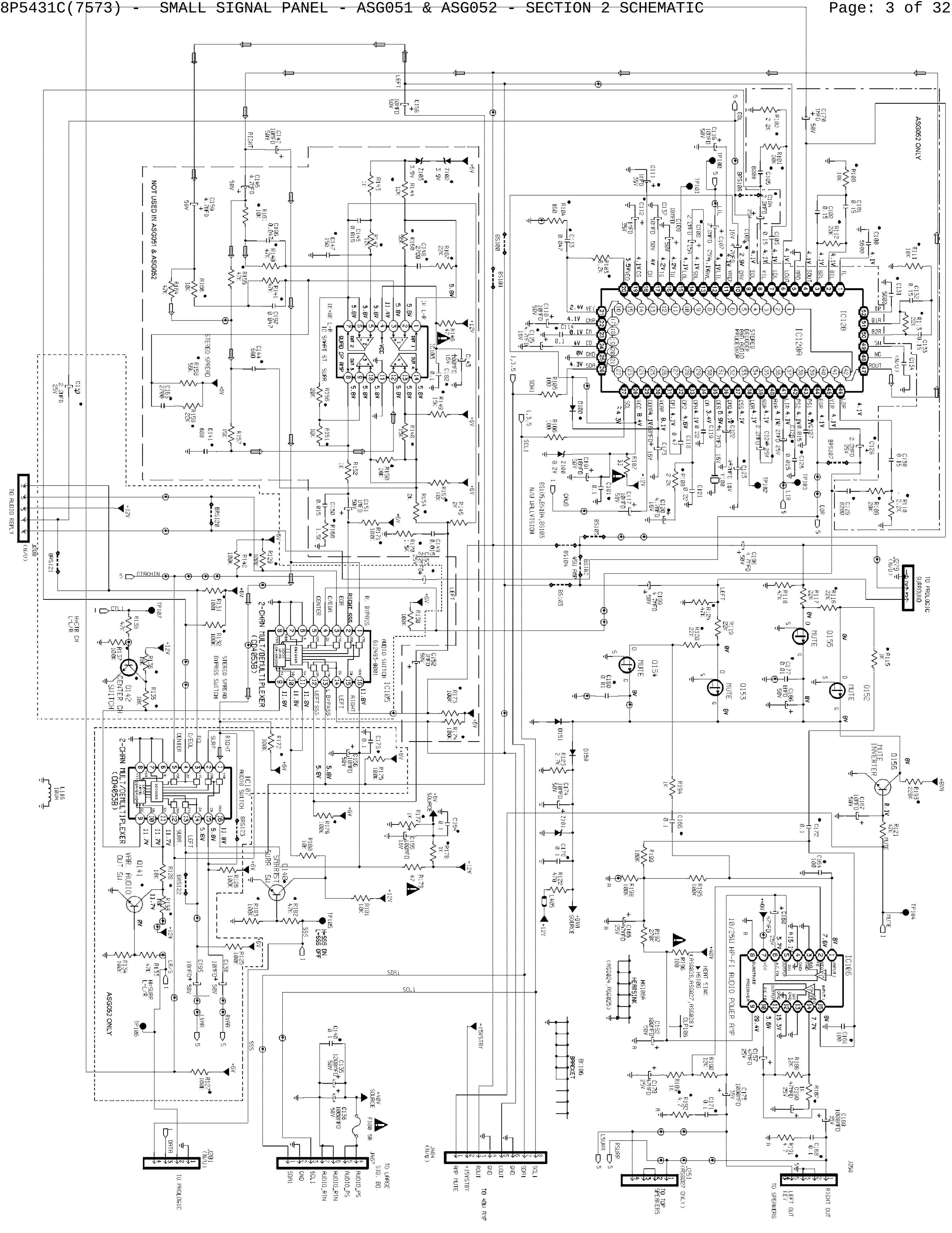

34A
0.8 Vp-p
20 usec

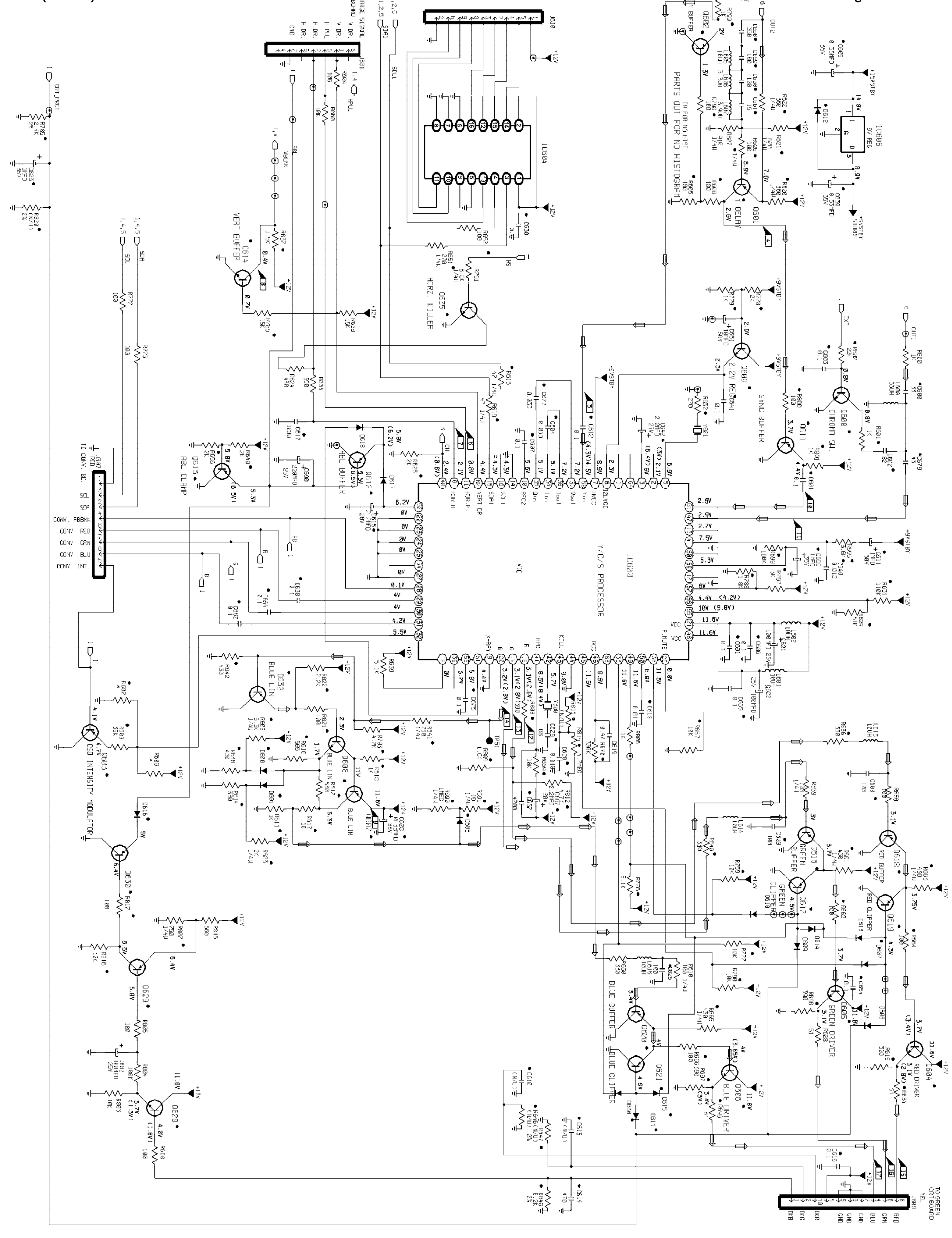

34C
1.4 Vp-p
20 usec

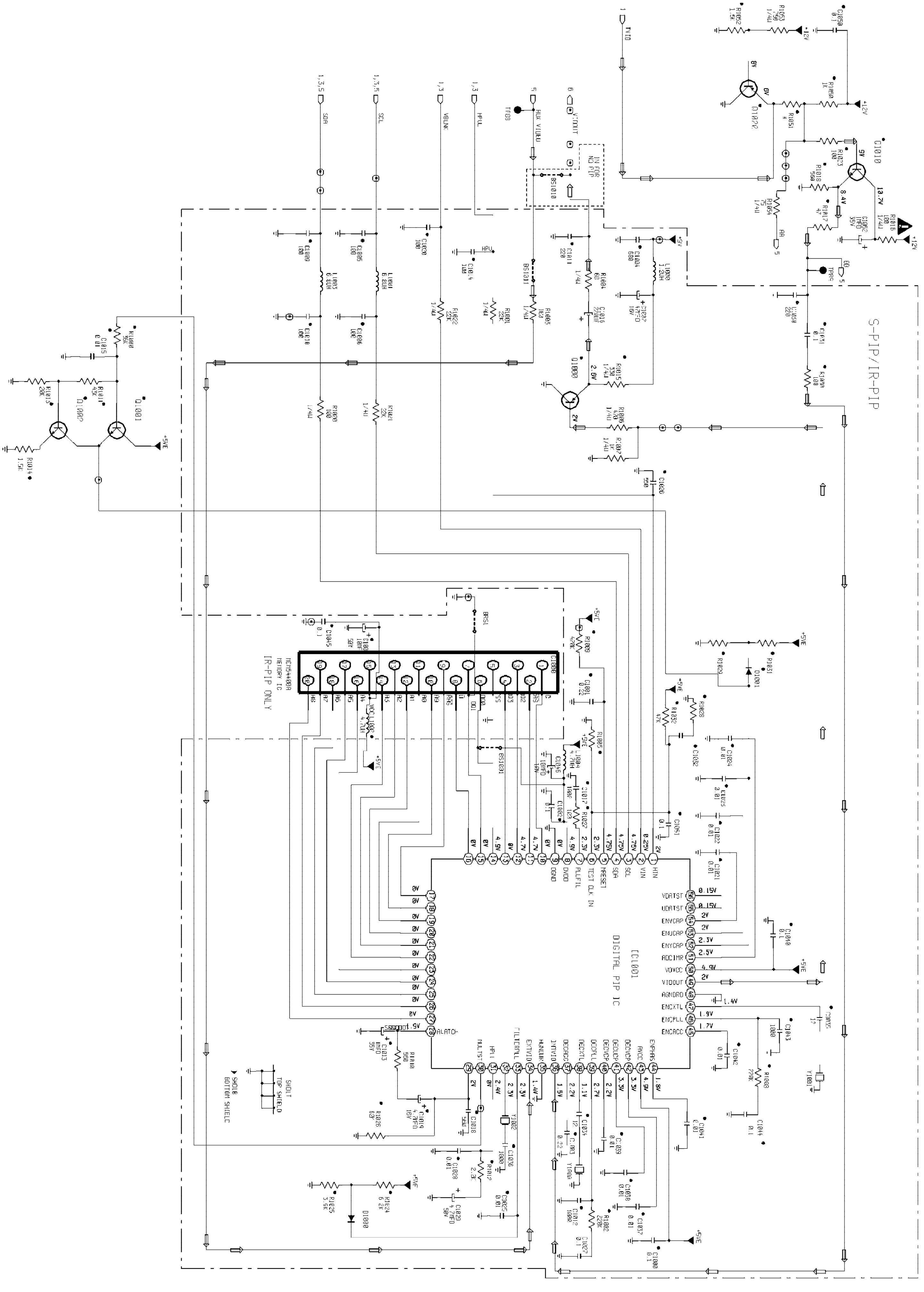

34B
1.4 Vp-p
20 usec

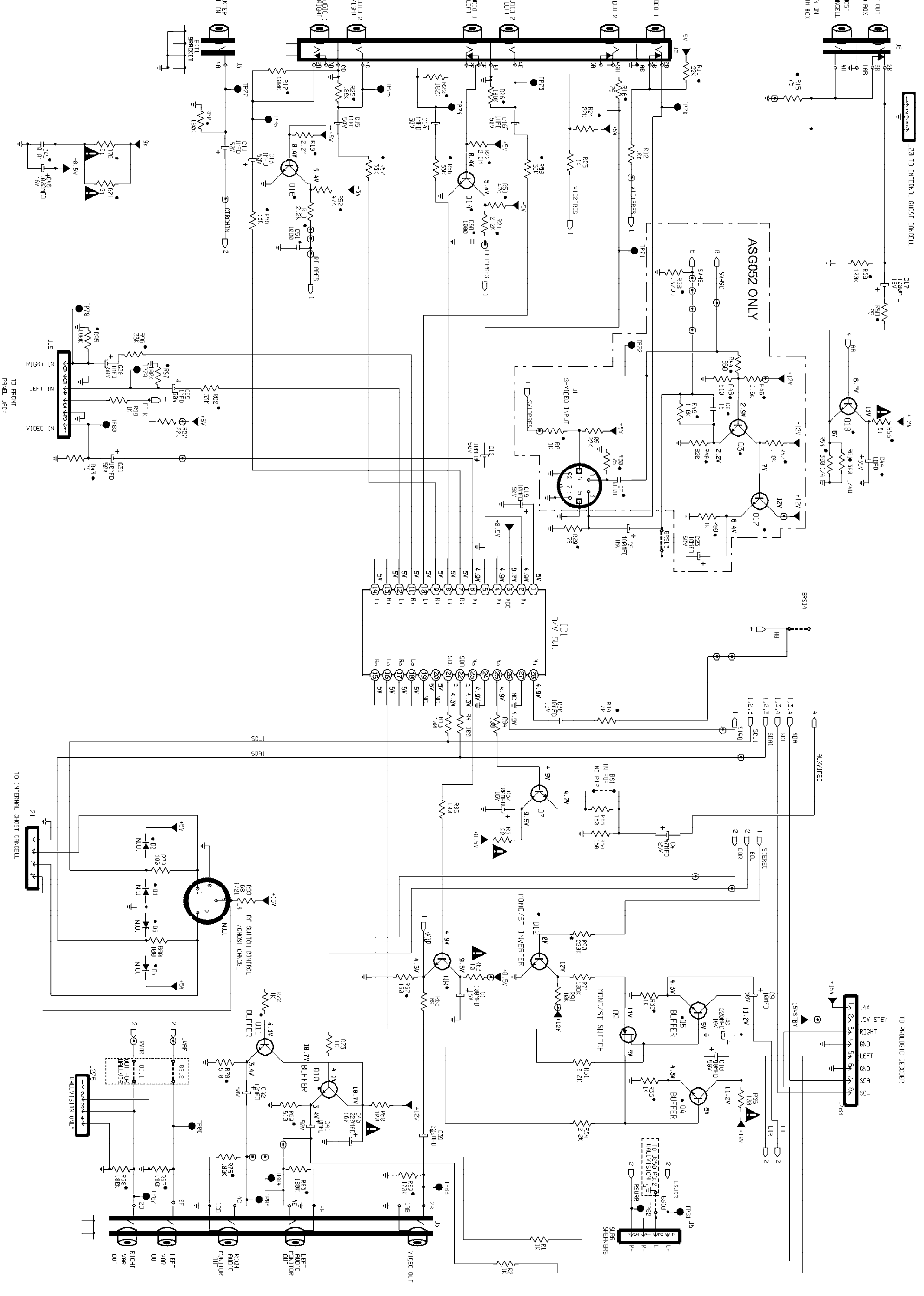

KEY BOARD
AIR PANEL
LEDS
IR REC
FRONT AV PANEL
SMALL SIGNAL PANEL
DIGITAL CONVERGENCE PANEL
LARGE SIGNAL PANEL
RED CRT PANEL
GREEN CRT PANEL
BLUE CRT BOARD
FLYBACK TRANSFORMER
FOCUS BLOCK
TO RED DAG
TO GREEN DAG
TO BLUE DAG
TO DAG
BLUE FOCUS
GREEN FOCUS
RED FOCUS
RED G2
GREEN G2
BLUE G2
RED HV ANODE
GREEN HV ANODE
BLUE HV ANODE
RED-V
RED-H
GRN-V
GRN-H
BLU-V
BLU-H

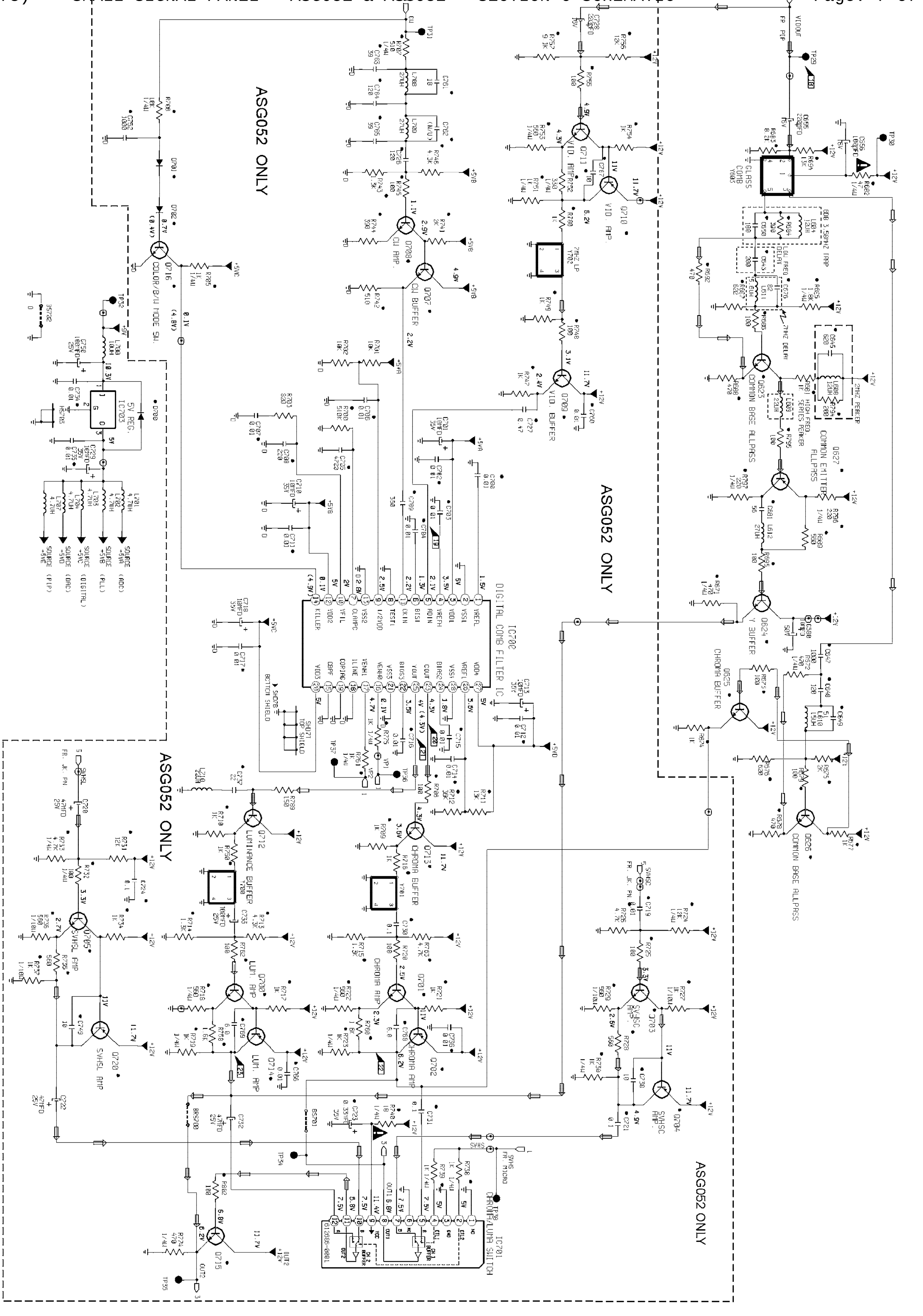

IC300 TUNING MICRO
IC200 IF SIGNAL PROCESSOR
Y200 SAW FILTER
UV1236 TUNER
IC304 EEPROM
IC400 12V REG.
IC401 5V REG.
Q300 ST. LED SWITCH
Q303 PWR. LED SWITCH
Q315 RESET INVERTED
Q308 VERT AMP
Q306 HORIZ AMP
Q305 OSD INTENSITY BUFFER
Q304 FAST BLK'G BUFFER
Q314 SDA AMP
Q301 SDA AMP
Q309 SWITCH
Q302 SCC AMP
Q313 SCC AMP
Q200 VID AMP
Q204 VIDEO BUFFER
Q201 COIN DET
Q202 COIN DET
Q203 COIN DET
J300 TO KEYBOARD
J302 TO KYBD LED BD.
J305 TO J307 IR RCVR BD
J403 TO LARGE SIG BD.
J306 TO GEMSTAR
J301 TO UPLV/SION SW. PANEL
J308
J310 TO GEMSTAR
J311 FROM GEMSTAR
J402 TO LARGE SIG BD.
JTEST
TP44
TP45
TP40
TP43
TP46
TP42
TP41
TP47
TP52
TP49
TP50
TP18
TP15
TP21
TP17
TP22
TP23
TP61
TP5
TVID


NOT USED IN ASG051 & ASG052
ASG052 ONLY
IC120 IC120A STEREO DECODER AND AUDIO PROCESSOR
IC103 DUAL OP AMP
IC105 AUDIO SWITCH 612995-0001 2-CHAN MULT/DEMULTIPLEXER (CD4053B)
IC107 AUDIO SWITCH 2-CHAN MULT/DEMULTIPLEXER (CD4053B)
IC106 10/25W HI-FI AUDIO POWER AMP
STEREO SPREAD
STEREO SPREAD BYPASS SWITCH
Q142 CENTER CH SWITCH
H=CTR CH L=L/R
Q141 VAR AUDIO OUT SW
H=SURR L=L/R
Q140 SMARTSS SW
H=SSS ON L=SSS OFF
Q152 MUTE
Q153 MUTE
Q154 MUTE
Q155 MUTE
Q156 MUTE INVERTER
HS106 HEAT SINK (ASG026,ASG027,ASG028)
HS106A HEATSINK (ASG024,ASG025)
BR106 BRACKET
F100 5A
N/U WHALVISION BS105,BS104,BS103
J200 (N/U) TO AUDIO REPLY
J201 (N/U) TO PROLOGIC
J462 TO LARGE SIG. BD.
J464 (N/U) TO 40W AMP
J251 (ASG027 ONLY) TO TOP SPEAKERS
J250 TO SPEAKERS
J279 (N/U) TO PROLOGIC SURROUND
LEFT
RIGHT
CIRCHIN
CTL1
SDA1
SCL1
SSS
DATA
AUDIO_PS
AUDIO_RTN
GND
AMP MUTE
+15VSTBY
ROUT
LOUT
LSURR
RSURR
LEFT OUT
RIGHT OUT
MUTE
+40V SOURCE
+6V SOURCE
+12V
+6V
L116 10UH

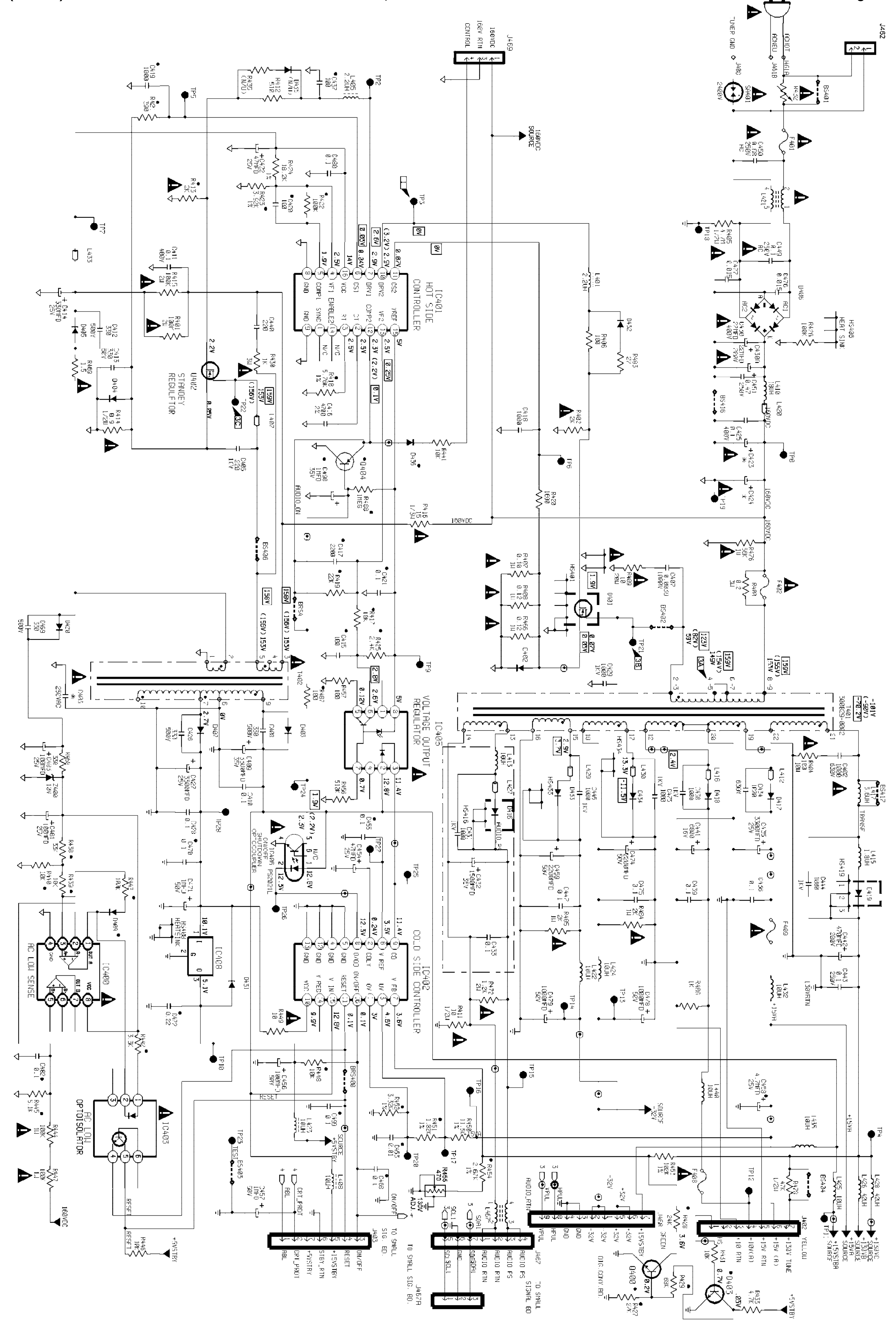

IC600
Y/C/S PROCESSOR
VID
IC604
IC606
9V REG
J010
J601
LARGE SIGNAL BOARD
J307
TO CONV. BD.
J308
TO GREEN CRT BOARD
PARTS OUT FOR NO HISTOGRAM
IN FOR NO HIST
Q602
BUFFER
Q601
DELAY
Q609
2.2V REG
SYNC BUFFER
Q611
Q600
CHROMA SW.
Q635
HORZ. KILLER
Q614
VERT BUFFER
Q615
ABL CLAMP
Q612
ABL BUFFER
Q632
BLUE LIN
Q608
BLUE LIN
Q603
OSD INTENSITY MODULATOR
Q630
Q629
Q628
Q616
GREEN BUFFER
Q617
GREEN CLIPPER
Q618
RED BUFFER
Q619
RED CLIPPER
Q620
BLUE BUFFER
Q621
BLUE CLIPPER
Q605
GREEN DRIVER
Q606
BLUE DRIVER
Q604
RED DRIVER
CRT_PROT
SDA
SCL
CONV. FBBK
CONV. RED
CONV. GRN
CONV. BLU
CONV. INT.
+12V
+9VSTBY
+15VSTBY
+9VSTBY SOURCE
OUT1
OUT2
EXT
HDR.D.
HDR.P.
VERT DR
AFC2
P.MUTE
VCC
KILL
TP51

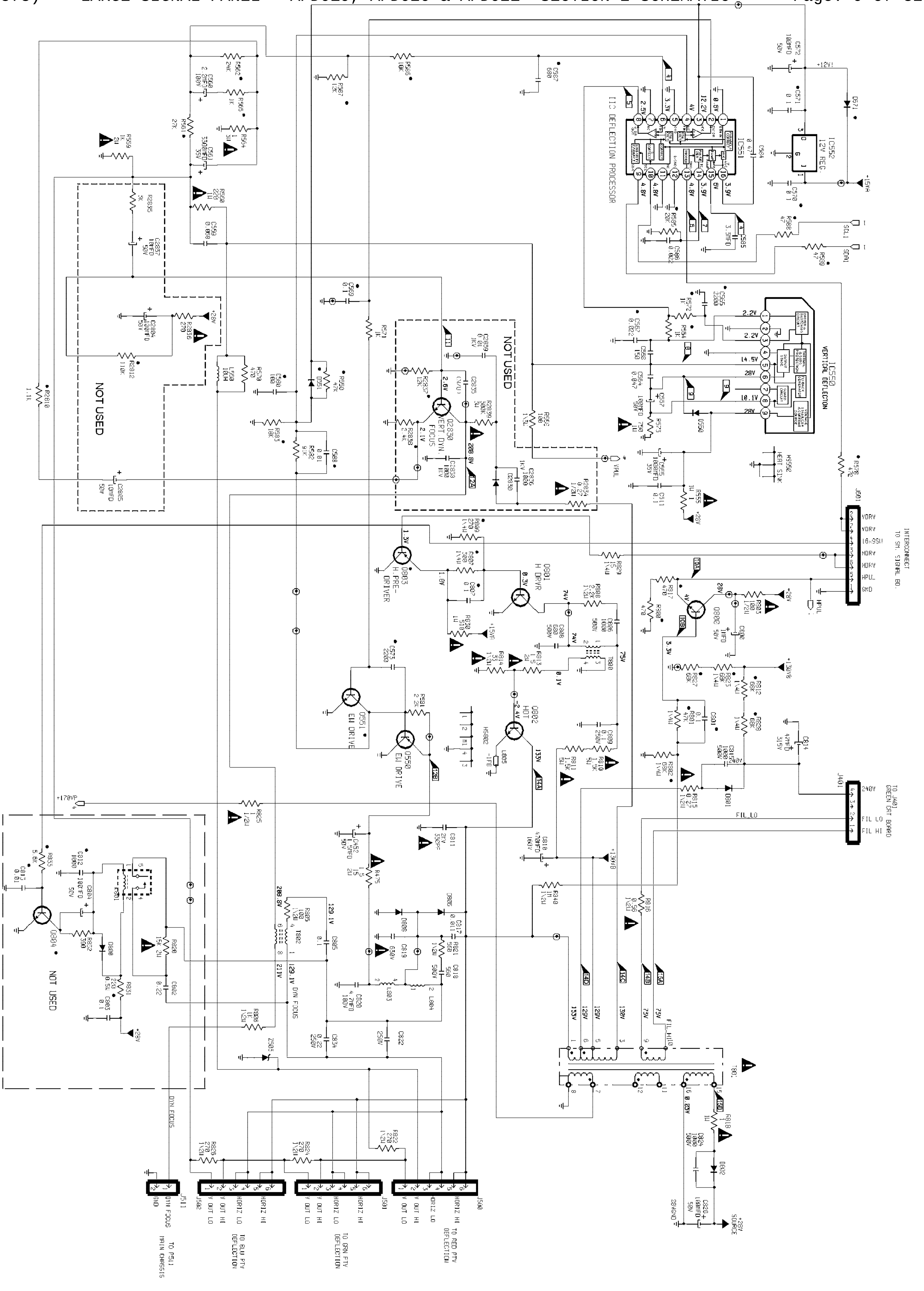

S-PIP/IR-PIP
DIGITAL PIP IC
IC1001
IR-PIP ONLY
HIN
VIN
SCL
SDA
RRESET
TEST CLK IN
PLLFIL
DVDD
DGND
VDATST
UDATST
ENYCAP
ENUCAP
ADCIMR
VDVCC
VIDOUT
AGNDRD
ENCXTL
ENCPLL
ENCACC
EXPHAS
AVCC
DECVCP
DECXTL
DECACC
INTVID
HUNVOR
EXTVID
FILCAPLL
MLTST
HPLL
ALATCH
+5VE
+12V
+9V
SDA
SCL
VBLNK
HPUL
AUX VIDEO
V.INPUT
TVID
IN FOR NO PIP
BS1010
BS1011
BS1031
Q1000
Q1001
Q1002
Q1010
Q1020
D1000
D1001
Y1001
Y1002
Y1000
SH018 BOTTOM SHIELD
SH017 TOP SHIELD
TP00
TP1C

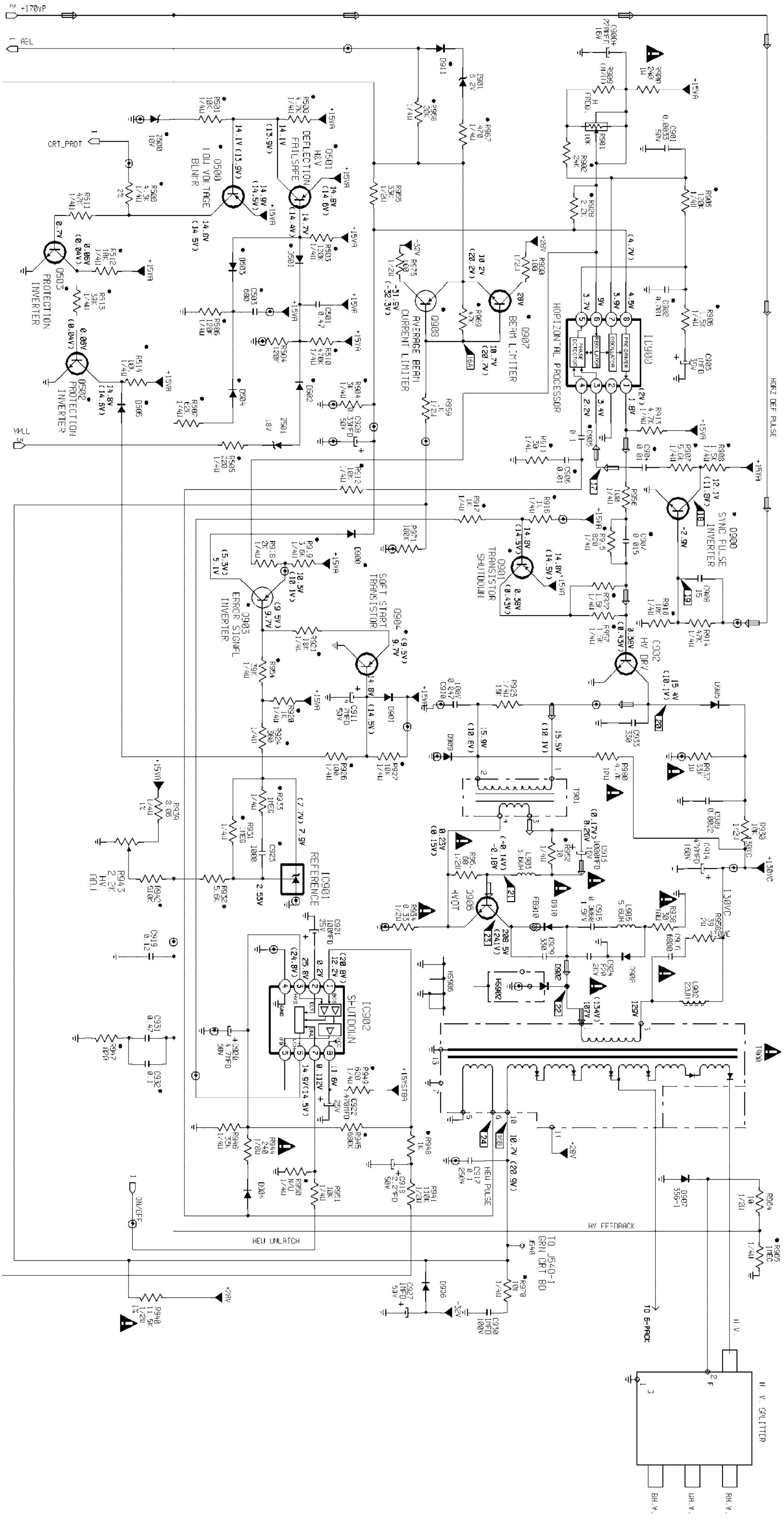

CENTER CH IN
AUDIO 1 RIGHT
AUDIO 2 RIGHT
AUDIO 1 LEFT
AUDIO 2 LEFT
VIDEO 2
VIDEO 1
V IN FROM BOX
GHOST CANCELL
V OUT TO BOX
BKT1 BRACKET
J5
J2
J6
J20 TO INTERNAL GHOST CANCELL
ASG052 ONLY
J1 S-VIDEO INPUT
SVIDPRES
VIDEOPRES
LEFTPRES
RTIPRES
CTRCHIN
SVHSL
SVHSC
J15
RIGHT IN
LEFT IN
VIDEO IN
TO FRONT PANEL JACK
IC1 A/V SW.
BRS14
BRS13
SCL1
SDA1
SCL
SDA
AUXVIDEO
BS1 IN FOR NO PIP
Q7
J21 TO INTERNAL GHOST CANCELL
RF SWITCH CONTROL /GHOST CANCEL
MONO/ST INVERTER
Q12
Q8
Q9 MONO/ST SWITCH
Q5 BUFFER
Q4 BUFFER
Q11 BUFFER
Q10 BUFFER
STEREO
EOL
EOR
LTR
LTL
J2275 DALVISION ONLY
BS11 OUT FOR DALVIS
BS12
RVAR
LVAR
TO J2290 PG 2 DALVISION 5
LSURR
RSURR
J5 SURR SPEAKERS
J466 TO PROLOGIC DECODER
14V
15V STBY
RIGHT
GND
LEFT
GND
SDA
SCL
RIGHT VAR OUT
LEFT VAR OUT
RIGHT AUDIO MONITOR OUT
LEFT AUDIO MONITOR OUT
VIDEO OUT
Q16
Q14
Q3
Q17
Q18

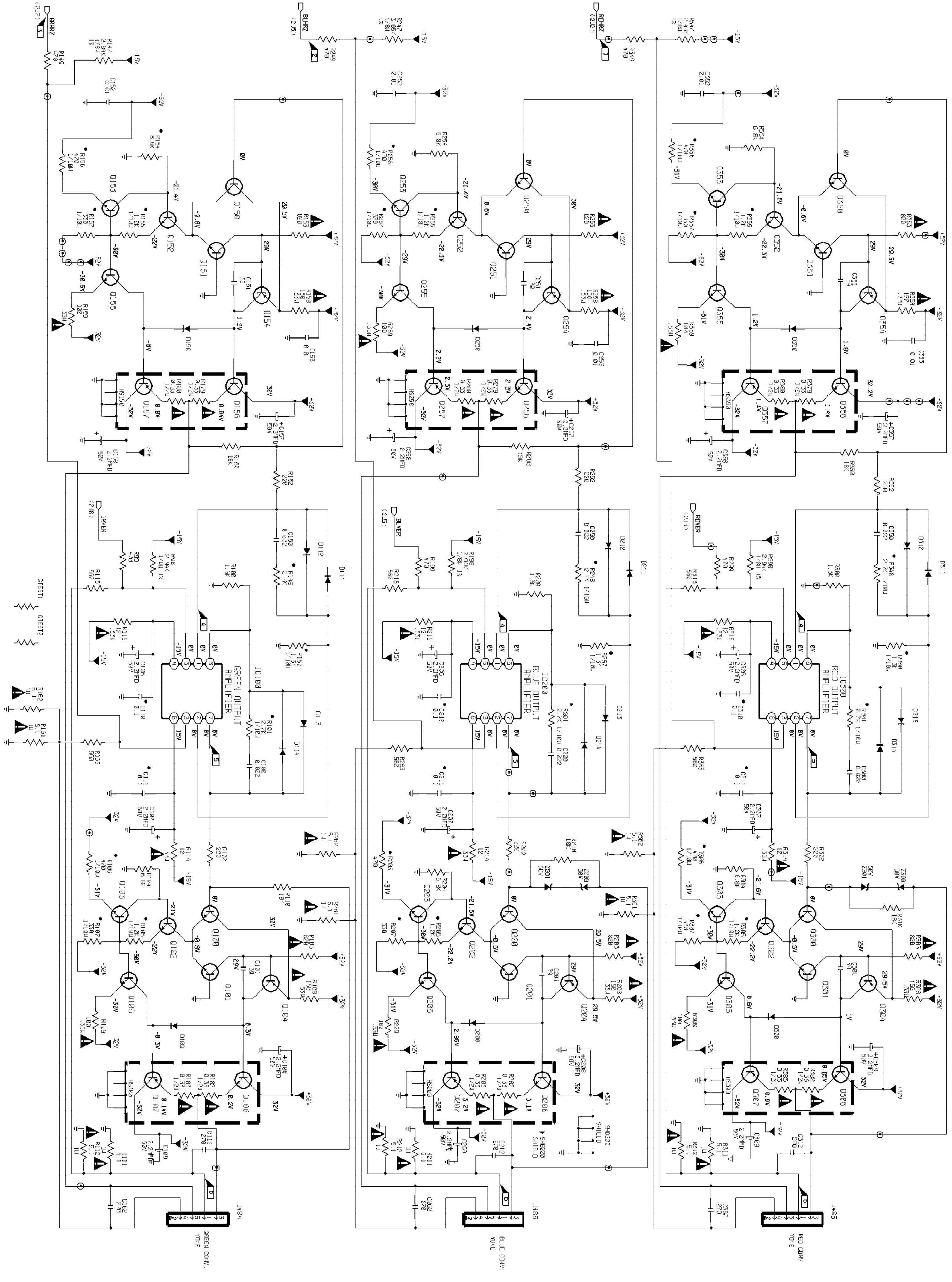

ASG052 ONLY
IC700 DIGITAL COMB FILTER IC
IC701 CHROMA/LUMA SWITCH
IC703 5V REG.
Q716 COLOR/B/W MODE SW.
Q708 CW AMP.
Q707 CW BUFFER
Q711 VID. AMP
Q710 VID. AMP.
Y702 7MHZ LP
Q709 VID. BUFFER
Y600 GLASS COMB
3.58MHZ TRAP
LOW FREQ DELAY
2MHZ DELAY
2MHZ PEAKER
HIGH FREQ SERIES PEAKER
Q623 COMMON BASE ALLPASS
Q627 COMMON EMITTER ALLPASS
Q624 Y BUFFER
Q625 CHROMA BUFFER
Q626 COMMON BASE ALLPASS
Q712 LUMINANCE BUFFER
Y700
Q713 CHROMA BUFFER
Y701
Q705 SVHSL AMP
Q720 SVHSL AMP
Q700 LUM. AMP
Q714 LUM. AMP
Q701 CHROMA AMP
Q702 CHROMA AMP
Q703 SVHSC AMP
Q704 SVHSC AMP
Q715
SOURCE +5VA (ADC)
SOURCE +5VB (PLL)
SOURCE +5VC (DIGITAL)
SOURCE +5VD (DAC)
SOURCE +5VE (PIP)
VIDOUT FP PIP
SVHSL FR. JK. PN
SVHSC FR. JK. PN
SVHS FR. MICRO
TOP SHIELD
BOTTOM SHIELD
TP29
TP30
TP31
TP32
TP34
TP35
TP36
TP37
TP38

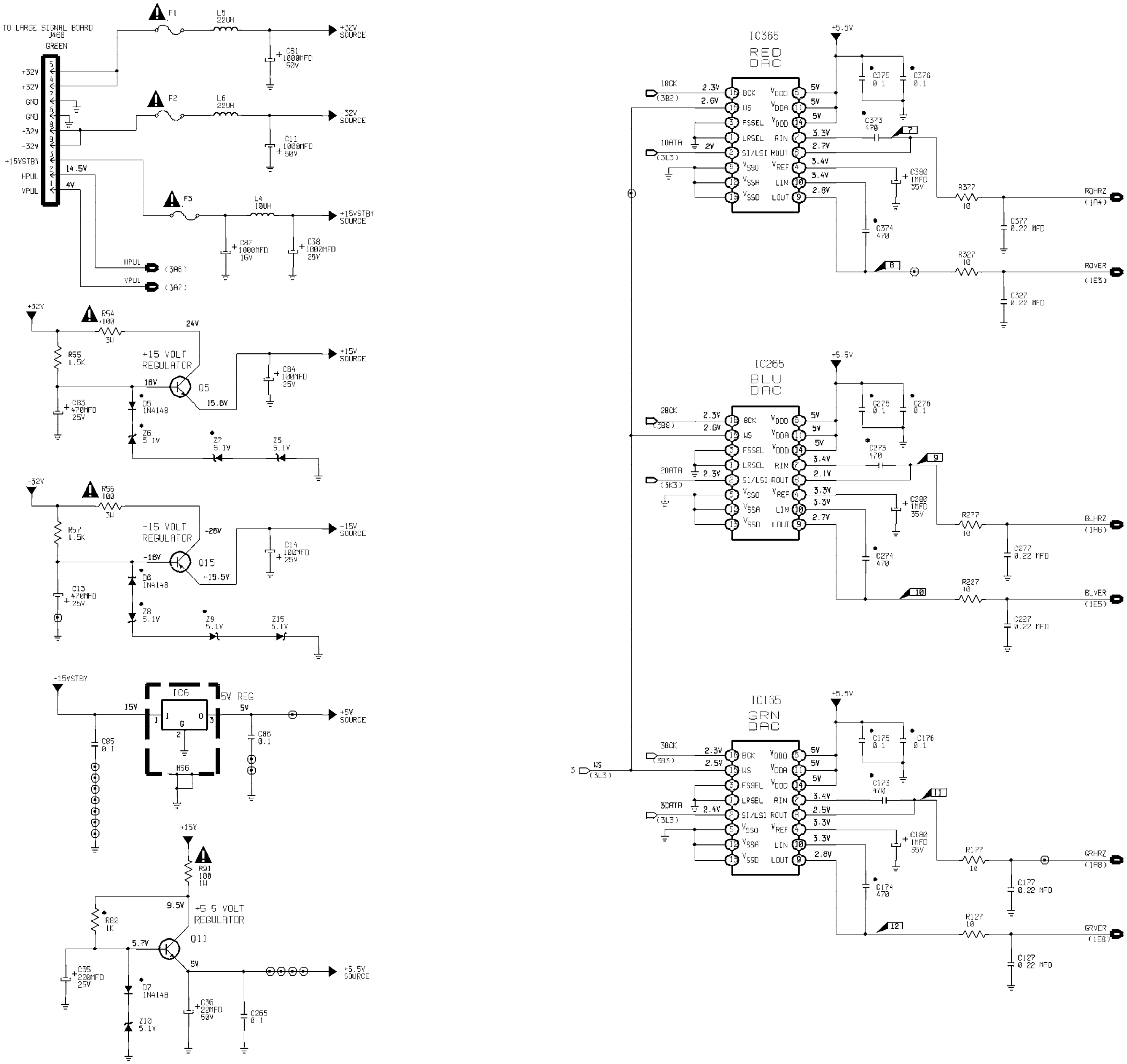
8P5431C(7573) - LARGE SIGNAL PANEL - APD019, APD020 & APD021- SECTION 1 SCHEMATIC

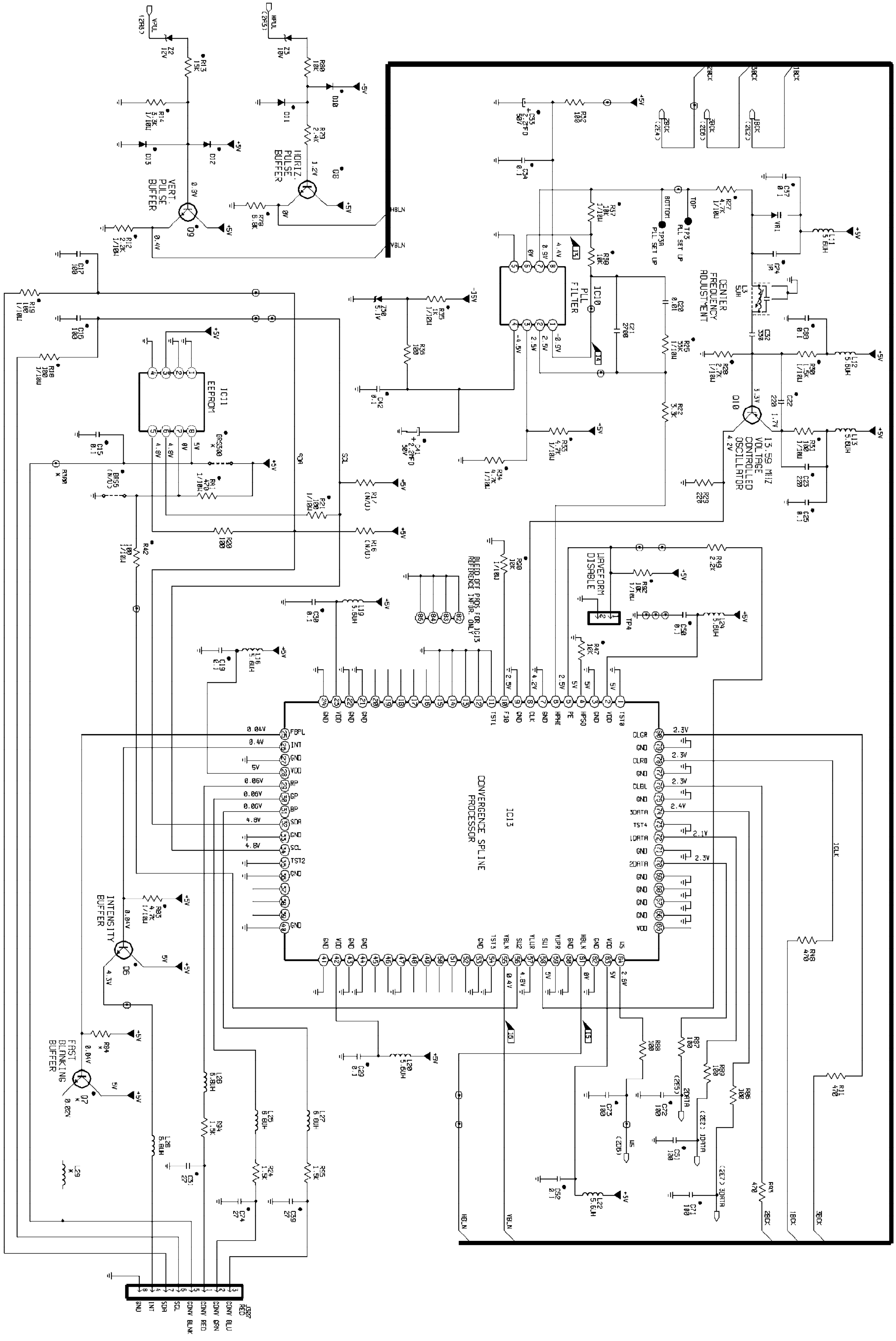

IC401 HOT SIDE CONTROLLER
IC402 COLD SIDE CONTROLLER
IC405 VOLTAGE OUTPUT REGULATOR
IC400 AC LOW SENSE
IC403 AC LOW OPTOISOLATOR
IC406 PS2021L ON/OFF SHUTDOWN OPTOCOUPLER
IC408
U402 STANDBY REGULATOR
T401
T402
D406
Q401
Q404
J462
J469
160VDC
160V RTN
CONTROL
160VDC SOURCE
J463
TO SMALL SIG. BD.
J467
TO SMALL SIGNAL BD
J467A
J482
J460
F401
F402
F408
F409
HEAT SINK
SOURCE -32V
SOURCE +5VSTBY
+5VSTBY
AUDIO ON
RESET
ON/OFF
ABL
CRT PROT
STBY RTN
AUDIO RTN
AUDIO FS
SDA
SCL
HPUL
VPUL
DIG.CONV.BD.
TP1
TP2
TP3
TP4
TP5
TP6
TP7
TP8
TP9
TP10
TP12
TP13
TP14
TP15
TP16
TP17
TP19
TP20
TP21
TP22
TP23
TP24
TP25
TP26
TP28
TEST
ADJ. 130V
R455 470

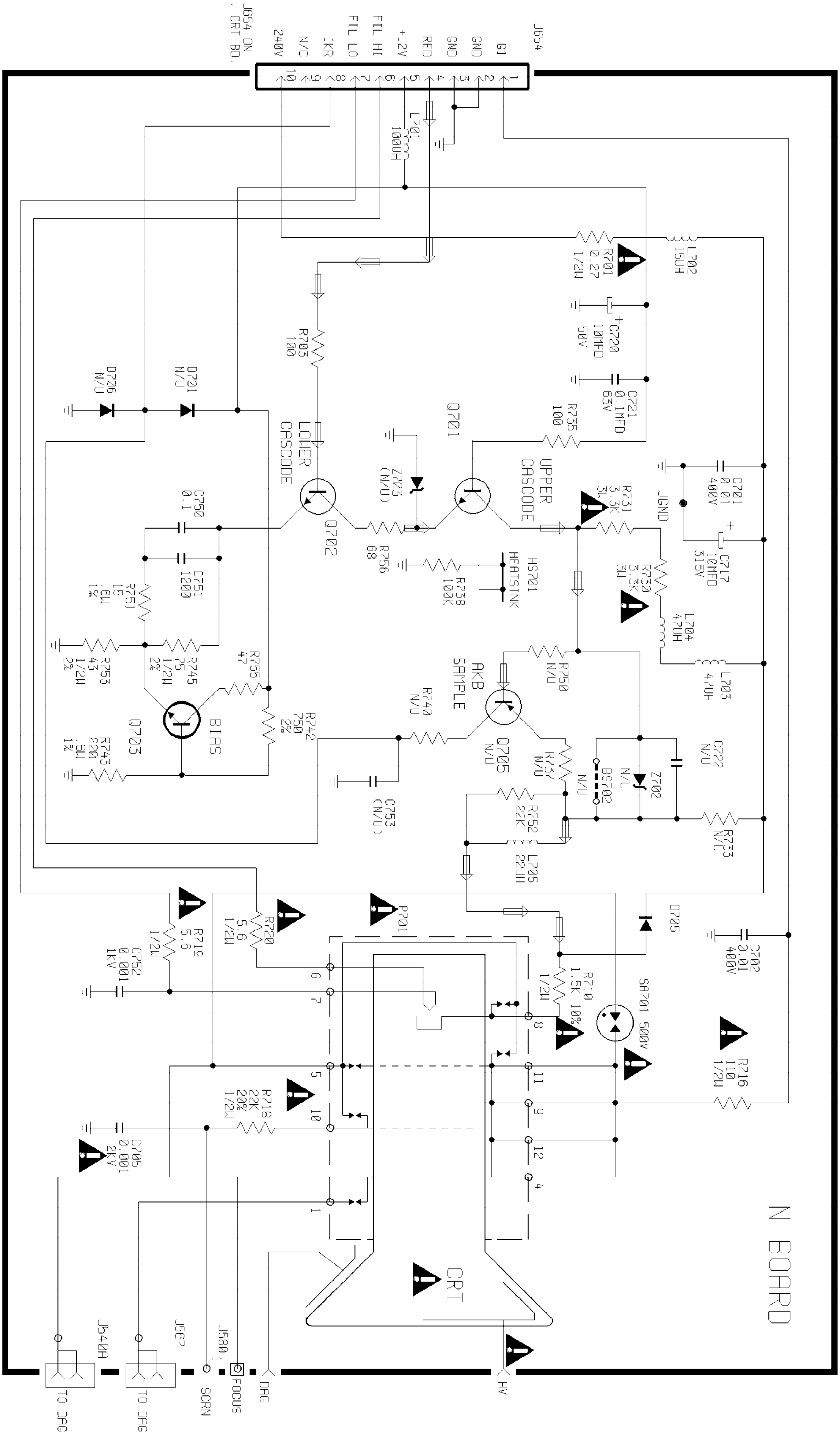

IIC DEFLECTION PROCESSOR
IC551
IC552
12V REG
IC550
VERTICAL DEFLECTION
NOT USED
NOT USED
NOT USED
Q2830
VERT DYN. FOCUS
Q803
H.PRE-DRIVER
Q801
H DRVR
Q802
HOT
Q800
Q551
EW DRIVE
Q550
EW DRIVE
Q804
T800
T801
T802
HS550
HEAT SINK
HS802
J601
INTERCONNECT TO SM. SIGNAL BD.
VDRV
VDRV
16x9SW
HDRV
HDRV
HPUL
GND
J401
TO J401 GREEN CRT BOARD
240V
FIL LO
FIL HI
FIL_LO
FIL_HI6
SDA1
SCL1
+12V!
+15VA
+28V
+130VB
+170VP
VPUL
HPUL
DYN FOCUS
J500
J501
J502
J511
V OUT LO
V OUT HI
HORIZ LO
HORIZ HI
TO RED PTV DEFLECTION
TO GRN PTV DEFLECTION
TO BLU PTV DEFLECTION
TO P511 MAIN CHASSIS
GND
+28V SOURCE
28VGND
C820 1000MFD 50V
D832
R818 1M
208.8V
129.1V
211V
133V
129V
130V
73V
75V
24V
0.1V
-2.4V
1.3V
1.8V
0.3V
2.6V
2.1V
3.3V
2.2V
14.5V
28V
10.1V
3.9V
4.8V
12.2V
2.5V
0.8V
4V
6V

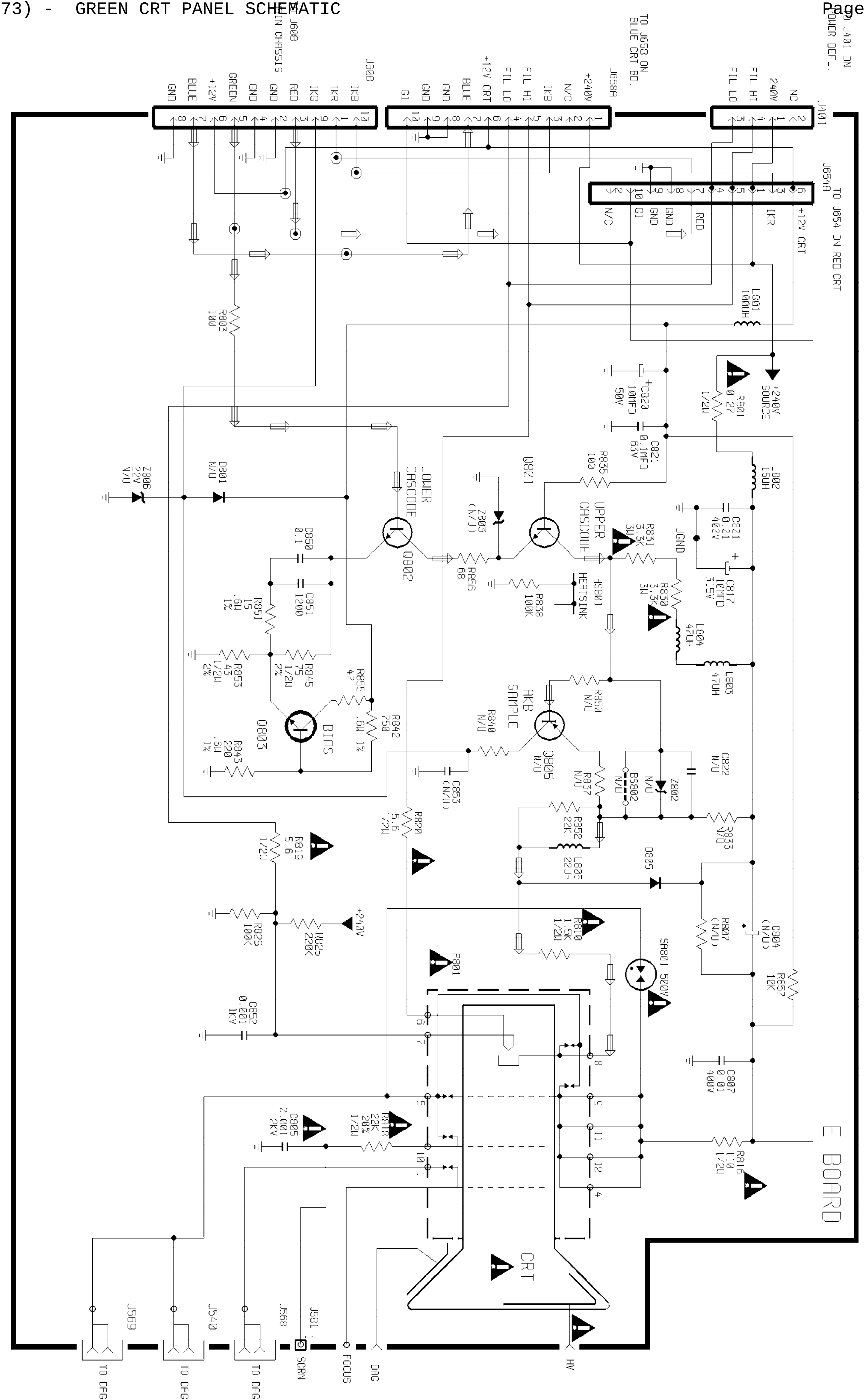

+170VP
AGL
CRT_PROT
VPLL
ON/OFF
HEW UNLATCH
HV FEEDBACK
TO J540-1 GRN CRT BD
TO 6-PACK
H.V.
H.V. SPLITTER
BH.V.
GH.V.
RH.V.
HORZ DEF PULSE
IC900 HORIZONTAL PROCESSOR
Q907 BEAM LIMITER
Q908 AVERAGE BEAM CURRENT LIMITER
Q900 SYNC PULSE INVERTER
Q901 TRANSISTOR SHUTDOWN
Q902 HV DRV
Q904 SOFT START TRANSISTOR
Q903 ERROR SIGNAL INVERTER
IC901 REFERENCE
IC902 SHUTDOWN
Q905 HOT
T901
T900
Q500 LOW VOLTAGE BLNKR
Q501 H&V DEFLECTION FAILSAFE
Q503 PROTECTION INVERTER
Q502 PROTECTION INVERTER
R943 2.2K HV ADJ
HEW PULSE
+130VC
130VC
H FREQ.

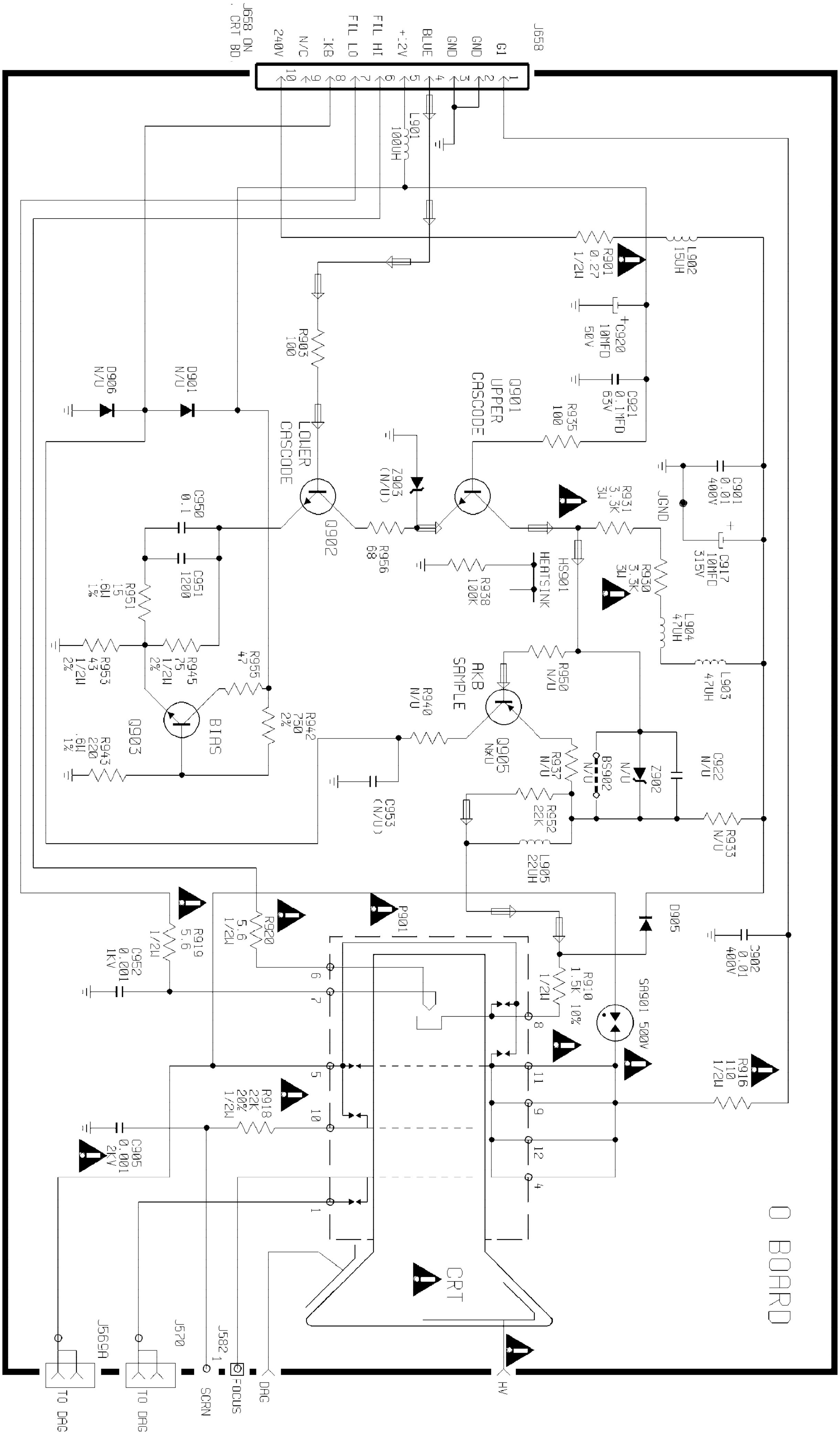

GRHRZ
BLHRZ
RDHRZ
GRVER
BLVER
RDVER
IC100 GREEN OUTPUT AMPLIFIER
IC200 BLUE OUTPUT AMPLIFIER
IC300 RED OUTPUT AMPLIFIER
STEST1
STEST2
SH0200 SHIELD
J484 GREEN CONV. YOKE
J485 BLUE CONV. YOKE
J483 RED CONV. YOKE
+32V
-32V
-15V
+15V

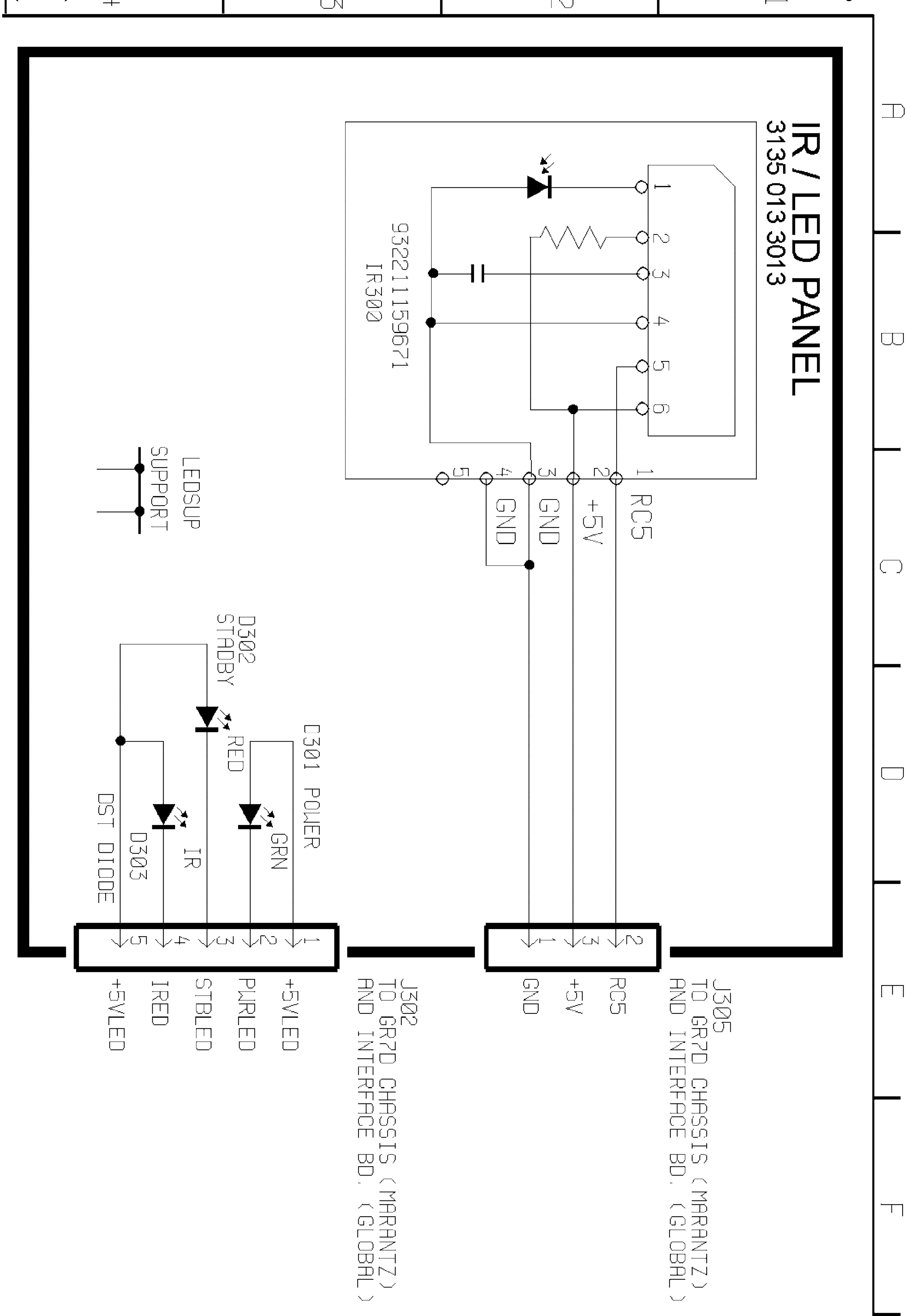

TO LARGE SIGNAL BOARD
J468
GREEN
+32V
+32V
GND
GND
-32V
-32V
+15VSTBY
HPUL
VPUL
14.5V
4V
F1
L5 22UH
+32V SOURCE
C81 1000MFD 50V
F2
L6 22UH
-32V SOURCE
C11 1000MFD 50V
F3
L4 10UH
+15VSTBY SOURCE
C87 1000MFD 16V
C38 1000MFD 25V
HPUL (3A6)
VPUL (3A7)
+32V
R54 100 3W
24V
R55 1.5K
+15 VOLT REGULATOR
Q5
16V
15.6V
+15V SOURCE
C84 100MFD 25V
C83 470MFD 25V
D5 1N4148
Z6 5.1V
Z7 5.1V
Z5 5.1V
-32V
R56 100 3W
R57 1.5K
-15 VOLT REGULATOR
-26V
-16V
Q15
-15.5V
-15V SOURCE
C14 100MFD 25V
C13 470MFD 25V
D6 1N4148
Z8 5.1V
Z9 5.1V
Z15 5.1V
+15VSTBY
IC6
5V REG
15V
5V
I G O
+5V SOURCE
C85 0.1
C86 0.1
HS6
+15V
R91 100 1W
9.5V
+5.5 VOLT REGULATOR
R82 1K
5.7V
Q11
5V
C35 220MFD 25V
D7 1N4148
Z10 5.1V
C36 22MFD 50V
C265 0.1
+5.5V SOURCE
IC365
RED DAC
+5.5V
C375 0.1
C376 0.1
1BCK (3B2)
1DATA (3L3)
2.3V
2.6V
2V
BCK WS FSSEL LRSEL SI/LSI VSSO VSSA VSSD
VDDD VDDA VDDD RIN ROUT VREF LIN LOUT
5V 5V 5V 3.3V 2.7V 3.4V 3.4V 2.8V
C373 470
7
C380 1MFD 35V
R377 10
RDHRZ (1A4)
C377 0.22 MFD
C374 470
8
R327 10
RDVER (1E3)
C327 0.22 MFD
IC265
BLU DAC
+5.5V
C275 0.1
C276 0.1
2BCK (3B8)
2DATA (3K3)
2.3V
2.6V
2.3V
5V 5V 5V 3.4V 2.1V 3.3V 3.3V 2.7V
C273 470
9
C280 1MFD 35V
R277 10
BLHRZ (1A6)
C277 0.22 MFD
C274 470
10
R227 10
BLVER (1E5)
C227 0.22 MFD
IC165
GRN DAC
+5.5V
C175 0.1
C176 0.1
3BCK (3D3)
3 WS (3L3)
3DATA (3L3)
2.3V
2.5V
2.4V
5V 5V 5V 3.4V 2.5V 3.3V 3.3V 2.8V
C173 470
11
C180 1MFD 35V
R177 10
GRHRZ (1A8)
C177 0.22 MFD
C174 470
12
R127 10
GRVER (1E8)
C127 0.22 MFD

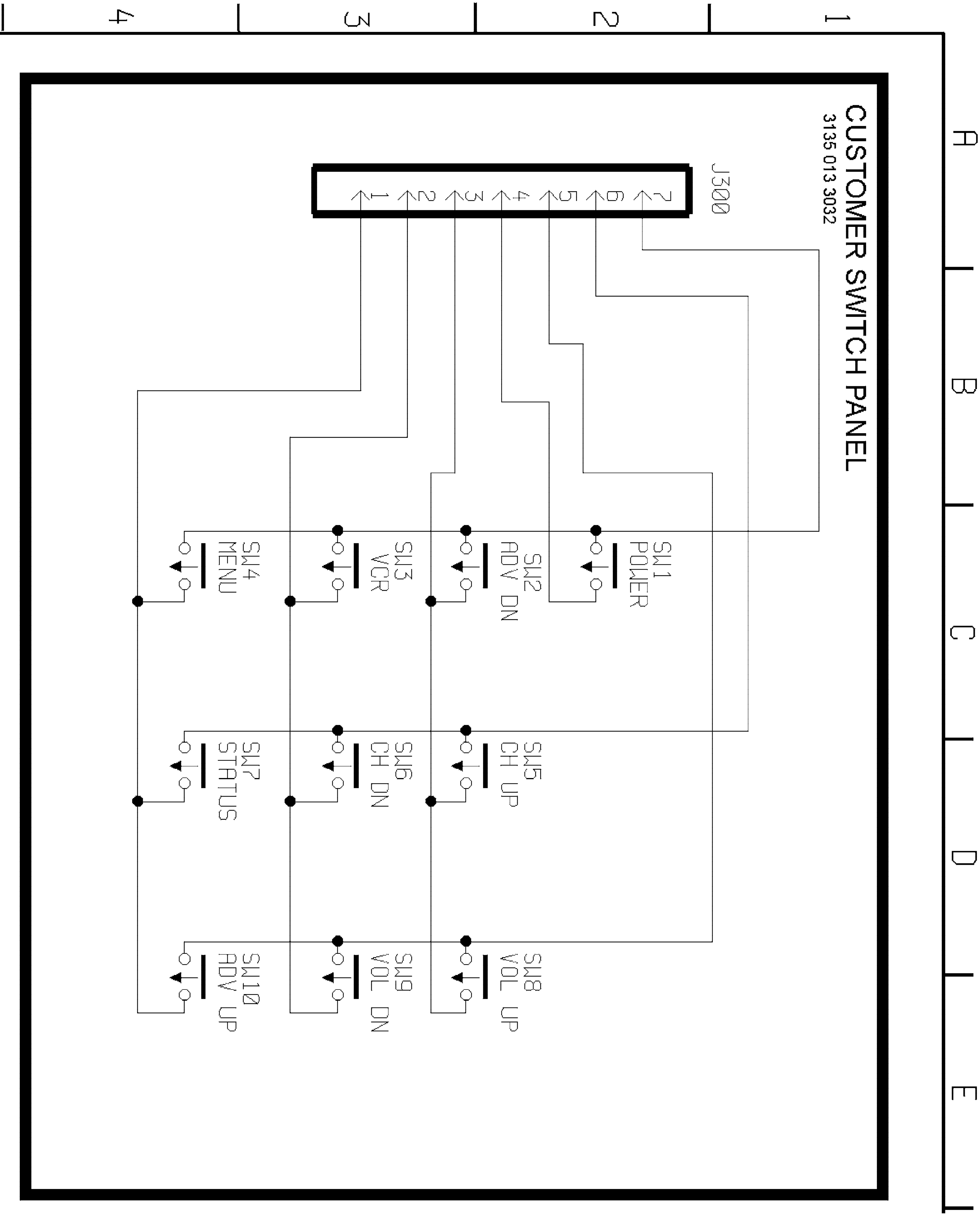

VPUL
HPUL
VERT. PULSE BUFFER
HORIZ. PULSE BUFFER
Q9
Q8
HBLN
VBLN
1BCK
2BCK
3BCK
IC11 EEPROM
IC10 PLL FILTER
TP3 PLL SET UP
TP3A PLL SET UP
TOP
BOTTOM
CENTER FREQUENCY ADJUSTMENT
L3 5UH
Q10
15.59 MHZ VOLTAGE CONTROLLED OSCILLATOR
WAVEFORM DISABLE
TP4
BLEED OFF PADS FOR IC13 REFERENCE INFOR. ONLY
IC13
CONVERGENCE SPLINE PROCESSOR
FBPL
INT
SDA
SCL
TST2
CLGR
CLRD
CLBL
3DATA
TST4
1DATA
2DATA
INTENSITY BUFFER
Q6
FAST BLANKING BUFFER
Q7
1CLK
J307
GND
INT
SDA
SCL
CONV BLNK
CONV RED
CONV GRN
CONV BLU

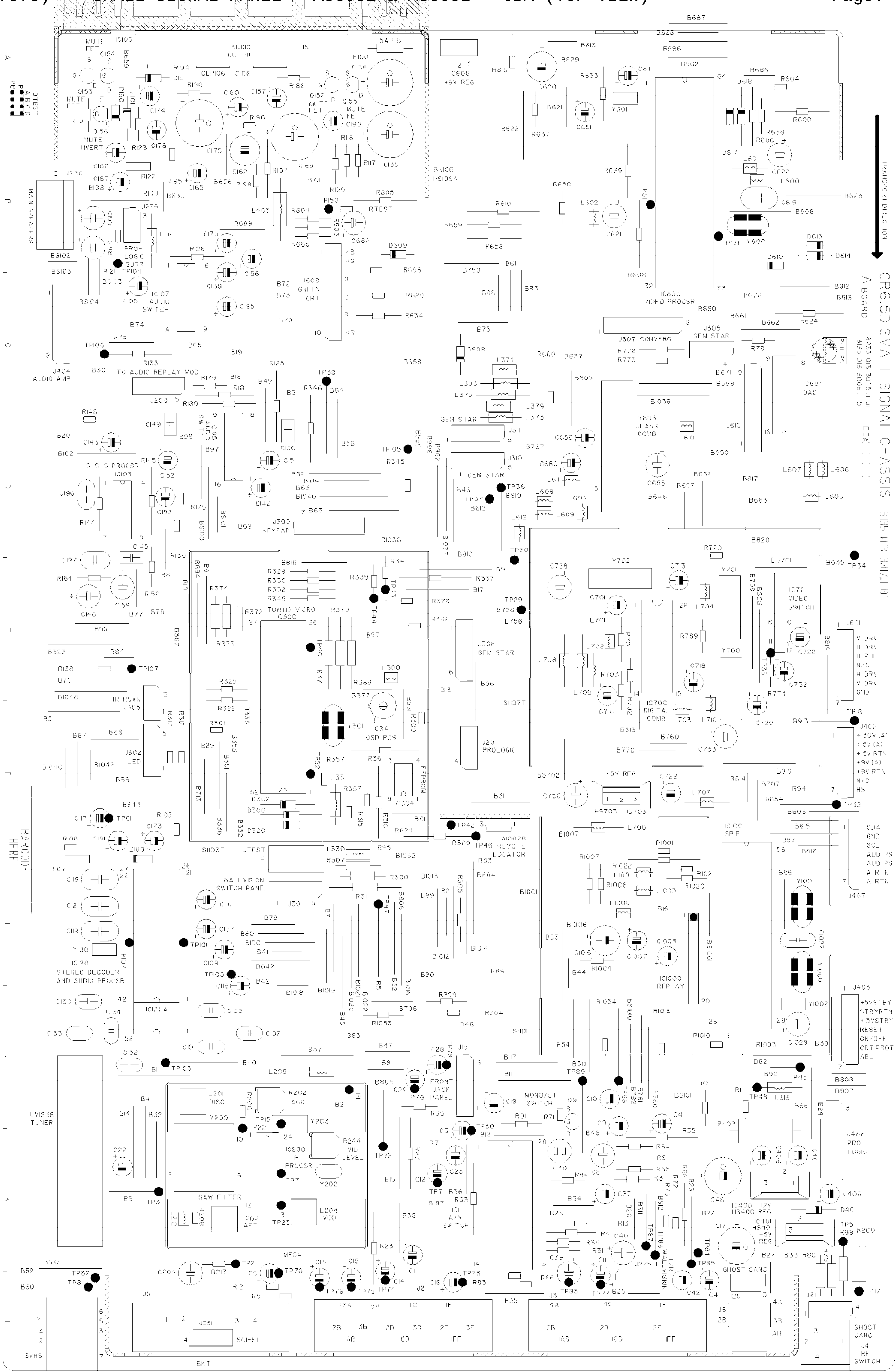

J654
J654 ON N. CRT BD.
G1
GND
GND
RED
+12V
FIL HI
FIL LO
IKR
N/C
240V
1
2
3
4
5
6
7
8
9
10
L701 100UH
R701 0.27 1/2W
L702 15UH
C720 10MFD 50V
R703 100
C721 0.1MFD 63V
R735 100
Q701
UPPER CASCODE
LOWER CASCODE
Q702
D701 N/U
D706 N/U
Z703 (N/U)
C750 0.1
C751 1200
R751 15 .6W 1%
R756 68
R738 100K
HS701 HEATSINK
R731 3.3K 3W
R730 3.3K 3W
JGND
C701 0.01 400V
C717 10MFD 315V
L704 470UH
L703 470UH
R745 75 1/2W 2%
R753 43 1/2W 2%
R755 47
R742 750 2%
Q703
BIAS
R743 220 .6W 1%
AKB SAMPLE
R750 N/U
R740 N/U
Q705 N/U
R737 N/U
C753 (N/U)
BS702 N/U
Z702 N/U
C722 N/U
R733 N/U
R752 22K
L705 22UH
D705
R719 5.6 1/2W
R720 5.6 1/2W
P701
C752 0.001 1KV
R710 1.5K 10% 1/2W
SA701 500V
C702 0.01 400V
R716 110 1/2W
R718 22K 20% 1/2W
C705 0.001 2KV
1
4
5
6
7
8
9
10
11
12
CRT
N BOARD
J540A
J567
J580 1
TO DAG
TO DAG
SCRN
FOCUS
DAG
HV

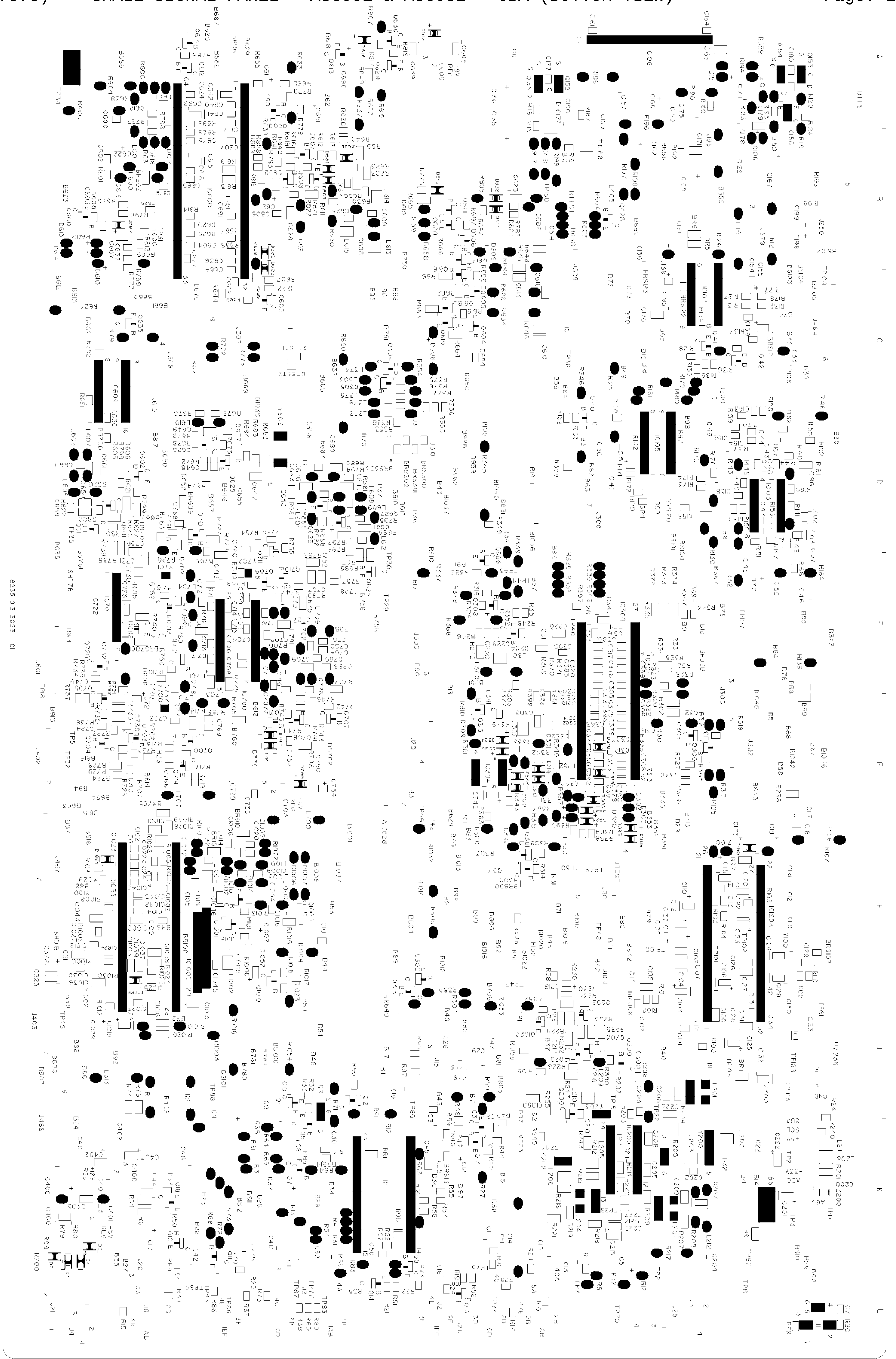

J608
TO J608 MAIN CHASSIS
GND
BLUE
+12V
GREEN
GND
GND
RED
IKG
IKR
IKB
J658A
TO J658 ON BLUE CRT BD.
G1
GND
GND
BLUE
+12V CRT
FIL LO
FIL HI
IKB
N/C
+240V
J401
TO J401 ON POWER DEF.
FIL LO
FIL HI
240V
NC
J654A
TO J654 ON RED CRT
N/C
G1
GND
GND
RED
IKR
+12V CRT
L801 1000UH
R803 100
+C820 10MFD 50V
C821 0.1MFD 63V
R801 0.27 1/2W
+240V SOURCE
R835 100
Q801
L802 15UH
LOWER CASCODE
UPPER CASCODE
JGND
C801 0.01 400V
Z806 22V N/U
D801 N/U
Z803 (N/U)
R831 3.3K 3W
C850 0.1
Q802
R856 68
C817 10MFD 315V
C851 1200
R851 15 .6W 1%
R838 100K
HS801 HEATSINK
R830 3.3K 3W
L804 47UH
R853 43 1/2W 2%
R845 75 1/2W 2%
R855 47
L803 47UH
R850 N/U
AKB SAMPLE
R842 750 .6W 1%
R840 N/U
Q803
BIAS
R843 220 .6W 1%
C853 (N/U)
Q805 N/U
R837 N/U
BS802 N/U
Z802 N/U
C822 N/U
R833 N/U
R852 22K
L805 22UH
R820 5.6 1/2W
R819 5.6 1/2W
D805
R826 100K
R825 220K
+240V
R810 1.5K 1/2W
R807 (N/U)
C804 (N/U)
SA801 500V
P801
R857 10K
C852 0.001 1KV
C807 0.01 400V
C805 0.001 2KV
R818 22K 20% 1/2W
R816 110 1/2W
E BOARD
CRT
J569
J540
J568
J581
TO DFG
TO DFG
TO DFG
SCRN
FOCUS
DAG
HV
1
2
3
4
5
6
7
8
9
10
11
12


J658
G1
GND
GND
BLUE
+12V
FIL HI
FIL LO
IKB
N/C
240V
CN. J658 ON CRT BD.
1
2
3
4
5
6
7
8
9
10
L901 100UH
R901 0.27 1/2W
L902 15UH
+C920 10MFD 50V
C921 0.1MFD 63V
R903 100
Q901 UPPER CASCODE
R935 100
D901 N/U
D906 N/U
LOWER CASCODE
Z903 (N/U)
C901 0.01 400V
R931 3.3K 3W
JGND
C917 10MFD 315V
C950 0.1
Q902
R956 68
HS901 HEATSINK
R938 100K
R930 3.3K 3W
C951 1200
R951 15 .6W 1%
L904 470UH
R953 43 1/2W 2%
R945 75 1/2W 2%
R955 47
AKB SAMPLE
R950 N/U
L903 470UH
R942 750 2%
R940 N/U
Q903
BIAS
R943 220 .6W 1%
Q905 N/U
R937 N/U
BS902 N/U
Z902 N/U
C922 N/U
C953 (N/U)
R952 22K
L905 22UH
R933 N/U
R919 5.6 1/2W
R920 5.6 1/2W
P901
D905
C952 0.001 1KV
R910 1.5K 10% 1/2W
SA901 500V
C902 0.01 400V
R916 110 1/2W
R918 22K 20% 1/2W
C905 0.001 2KV
6
7
8
5
11
10
9
12
4
1
O BOARD
CRT
J569A
J570
J582
1
TO DAG
TO DAG
SCRN
FOCUS
DAG
HV

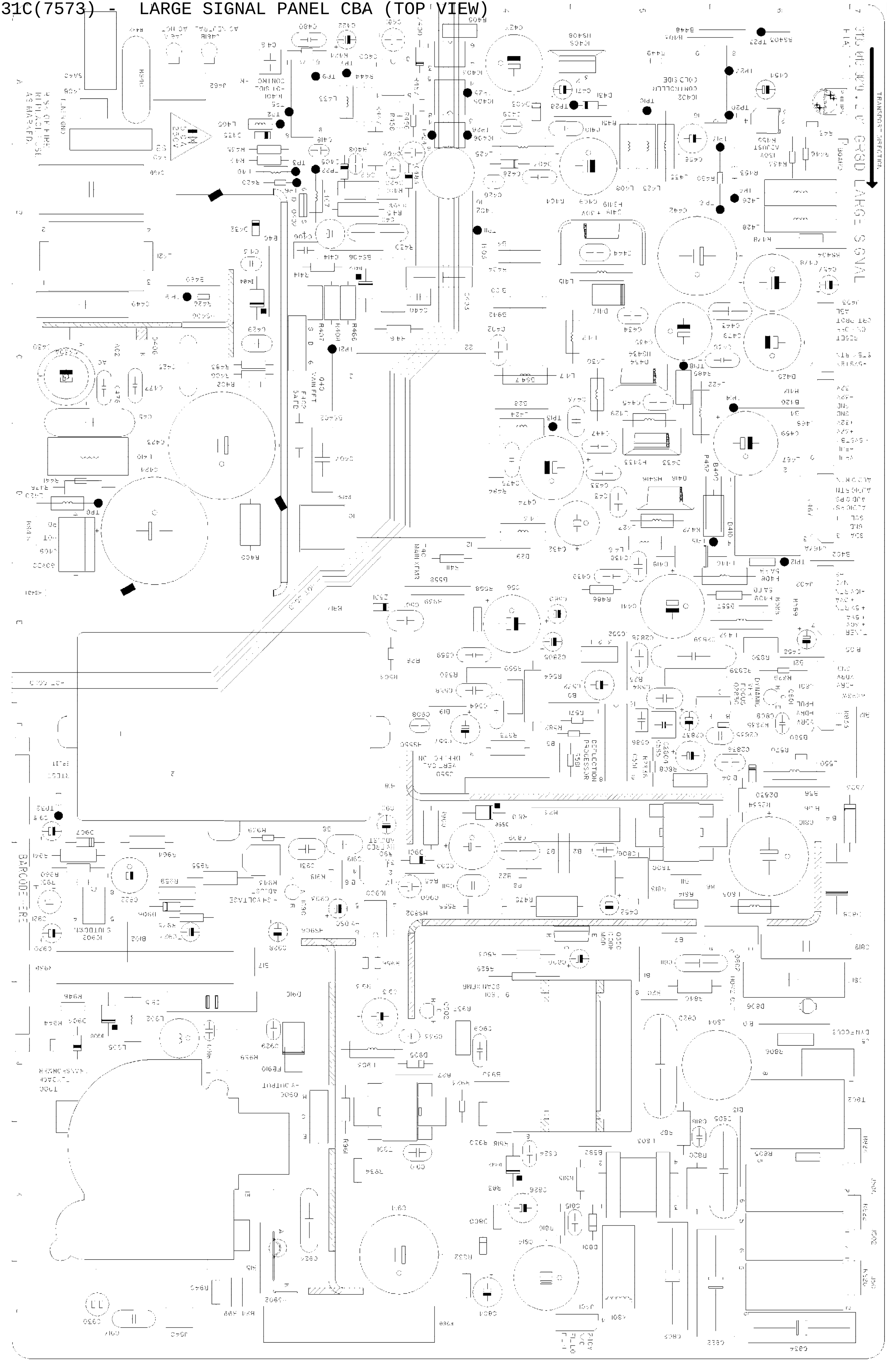

IR / LED PANEL
3135 013 3013
932211159671
IR300
1
2
3
4
5
6
1
2
3
4
5
RC5
+5V
GND
GND
LEDSUP
SUPPORT
D302
STADBY
RED
D301 POWER
GRN
DST DIODE
D303
IR
1
2
3
4
5
+5VLED
PWRLED
STBLED
IRED
+5VLED
J302
TO GR7D CHASSIS (MARANTZ)
AND INTERFACE BD. (GLOBAL)
2
3
1
RC5
+5V
GND
J305
TO GR7D CHASSIS (MARANTZ)
AND INTERFACE BD. (GLOBAL)
A
B
C
D
E
F
1
2
3
4


CUSTOMER SWITCH PANEL
3135 013 3032
J300
1
2
3
4
5
6
7
SW1
POWER
SW2
ADV DN
SW3
VCR
SW4
MENU
SW5
CH UP
SW6
CH DN
SW7
STATUS
SW8
VOL UP
SW9
VOL DN
SW10
ADV UP
A
B
C
D
E

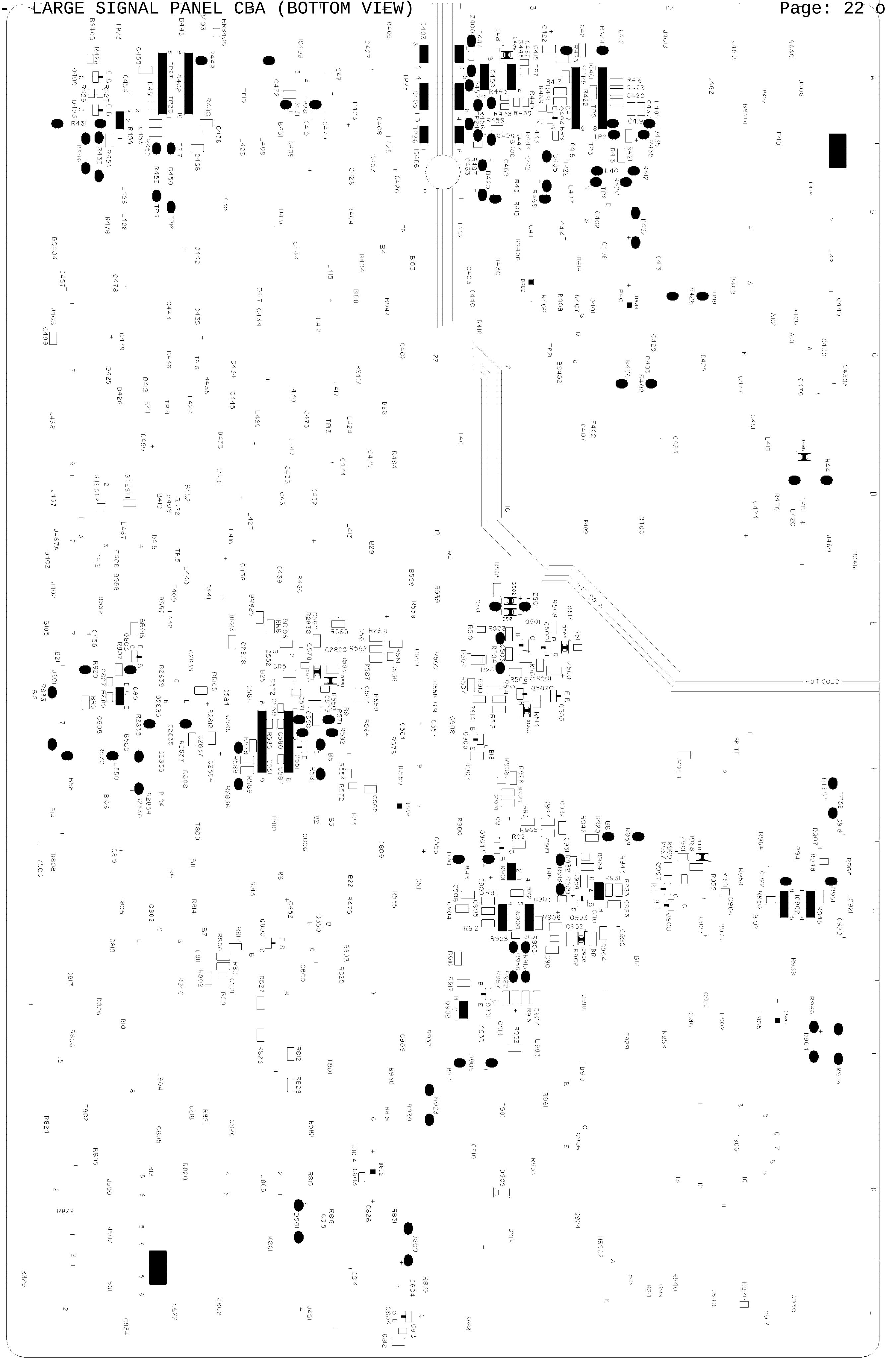

AUDIO OUTPUT
MUTE FET
MUTE INVERT
+9V REG
MAIN SPEAKERS
PRO-LOGIC SURR
IC107 AUDIO SWITCH
J608 GREEN CRT
IC600 VIDEO PROCSR
J307 CONVERG
J309 GEM STAR
IC604 DAC
J464 AUDIO AMP
TO AUDIO REPLAY MOD
IC105 AUDIO SWITCH
S-S-S PROCSR
J303 KEYPAD
GEM STAR
Y603 GLASS COMB
TUNING MICRO IC300
IR RCVR J305
J302 LED
OSD POS
EEPROM
J306 GEM STAR
J20 PROLOGIC
IC701 VIDEO SWITCH
IC700 DIGITAL COMB
+5V REG
IC703
J402
SPLIT
WALLVISION SWITCH PANEL
IC120 STEREO DECODER AND AUDIO PROCSR
REPLAY LOCATOR
IC1000 REPLAY
FRONT JACK PANEL
MONO/ST SWITCH
LVI236 TUNER
DISC
AGC
IC200 IF PROCSR
VID LEVEL
SAW FILTER
AFT
VCO
IC1 A/V SWITCH
IC400 12V REG
IC401 +5V REG
GHOST CANC
PRO LOGIC
J251 SCL-FT
J5
J2
J3
BKT
S-VHS
GHOST CANC
RF SWITCH
J467
SDA GND SCL AUD PS AUD PS A RTN A RTN
+5VSTBY STBYRTN +5VSTBY RESET ON/OFF CRT PROT ABL
V DRV H DRV H PUL N/C H DRV V DRV GND
+30V(A) +5V(A) +5V RTN +9V(A) +9V RTN N/C HS
CR5.5 SMALL SIGNAL CHASSIS
A BOARD
TRANSFER DIRECTION
TEST

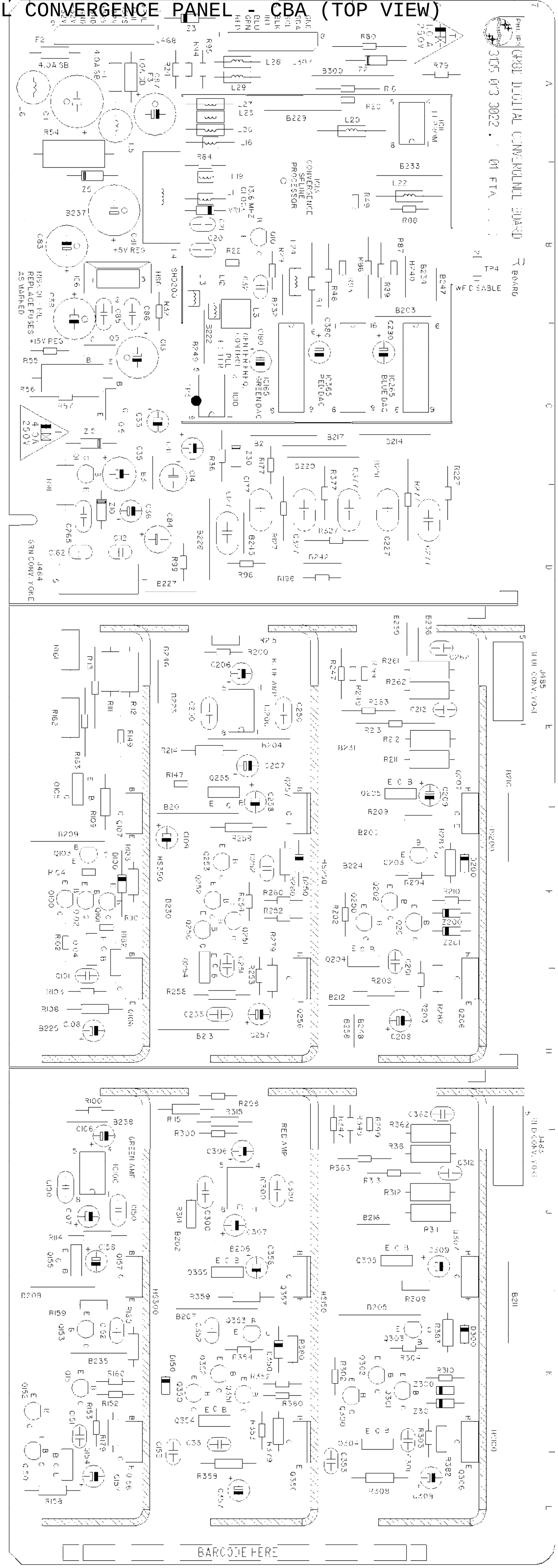


8P5431C(7573) - LARGE SIGNAL PANEL CBA (TOP VIEW)

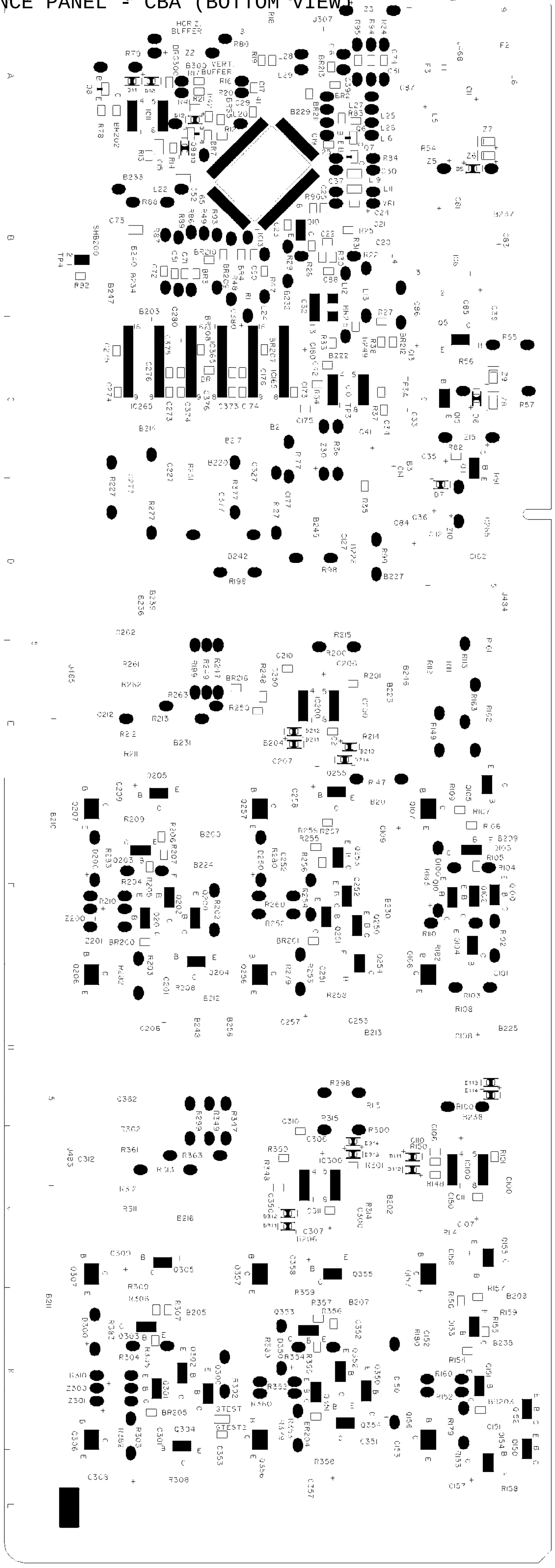


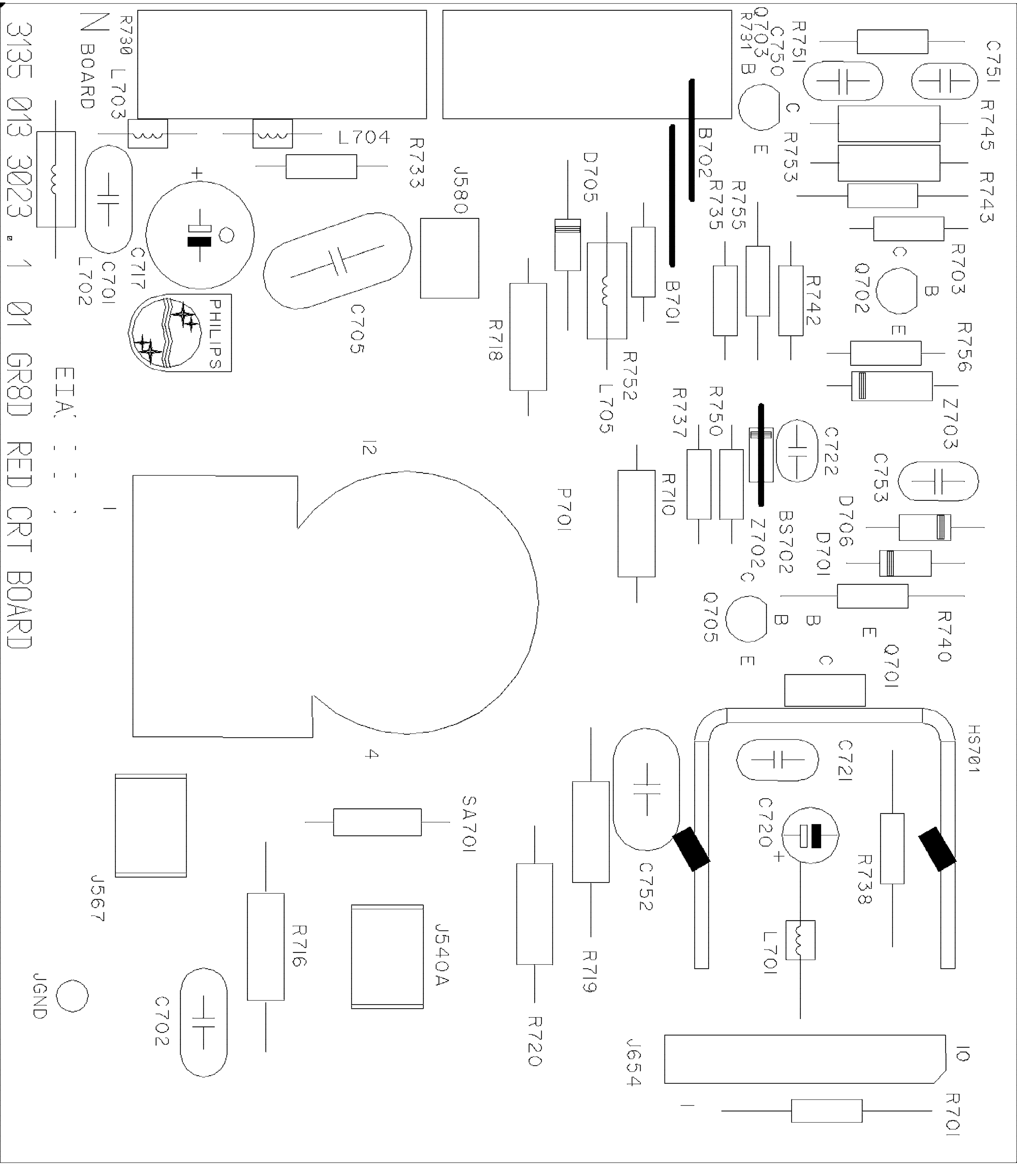
8P5431C(7573) - LARGE SIGNAL PANEL CBA (BOTTOM VIEW)



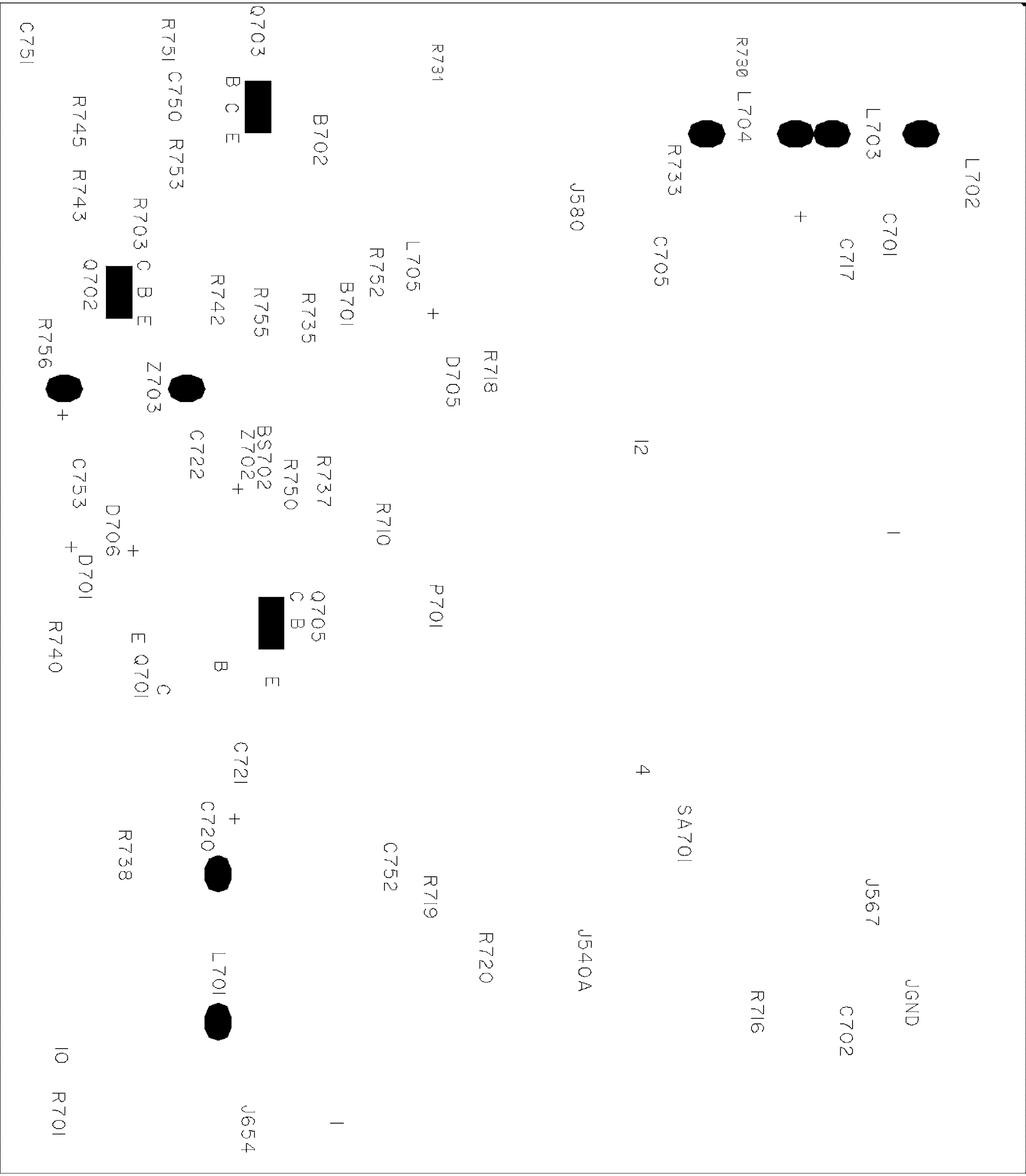

PHILIPS
3135 033 3032
DIGITAL CONVERGENCE BOARD
WF DISABLE
CONVERGENCE SPLINE PROCESSOR
GREEN DAC
RED DAC
BLUE DAC
+5V REG
+15V REG
HS: ON F1 REPLACE FUSES AS MARKED
4.0A SB
GRN CONV YOKE
BLUE CONV YOKE
RED CONV YOKE
GREEN AMP
RED AMP
BARCODE HERE

8P5431C(7573) - DIGITAL CONVERGENCE PANEL - CBA (BOTTOM VIEW)

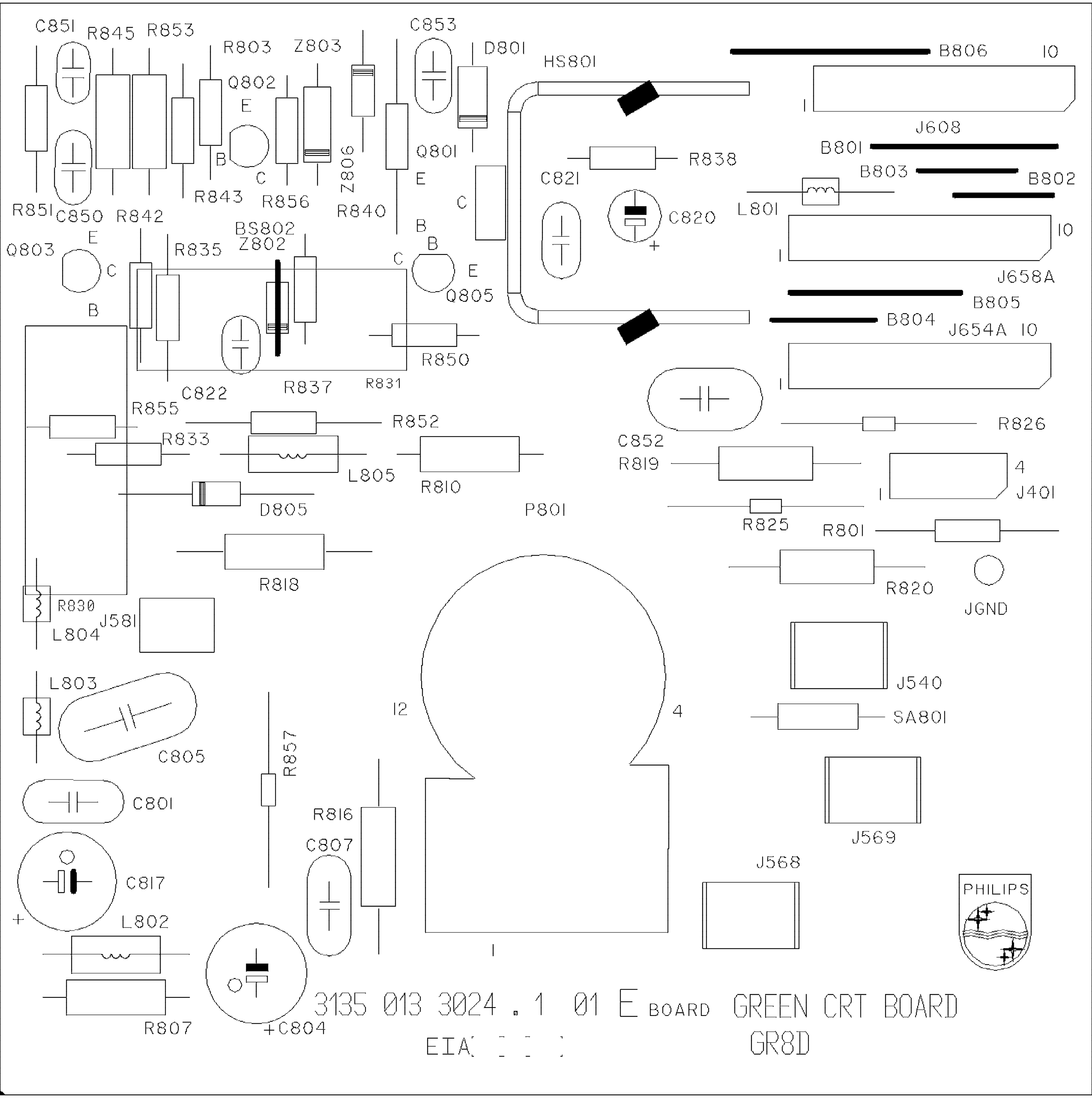

HORZ BUFFER
VERT BUFFER
J307
IC265
IC300
J483


3135 013 3023.1 01 GR8D RED CRT BOARD
N BOARD
EIA
R730
L703
L704
R733
J580
D705
B702
R735
R755
R731 B
Q703
C750
C
E
R751
C751
R745
R753
R743
R703
C
B
E
Q702
R742
B701
R752
L705
R718
C705
C717
C701
L702
PHILIPS
R756
Z703
C722
R750
R737
C753
D706
D701
R710
P701
12
Z702
BS702
C
B
E
Q705
B
E
C
R740
Q701
HS701
C721
C720
+
+
R738
C752
R719
L701
SA701
J567
R716
J540A
C702
JGND
R720
J654
10
1
R701
4
1

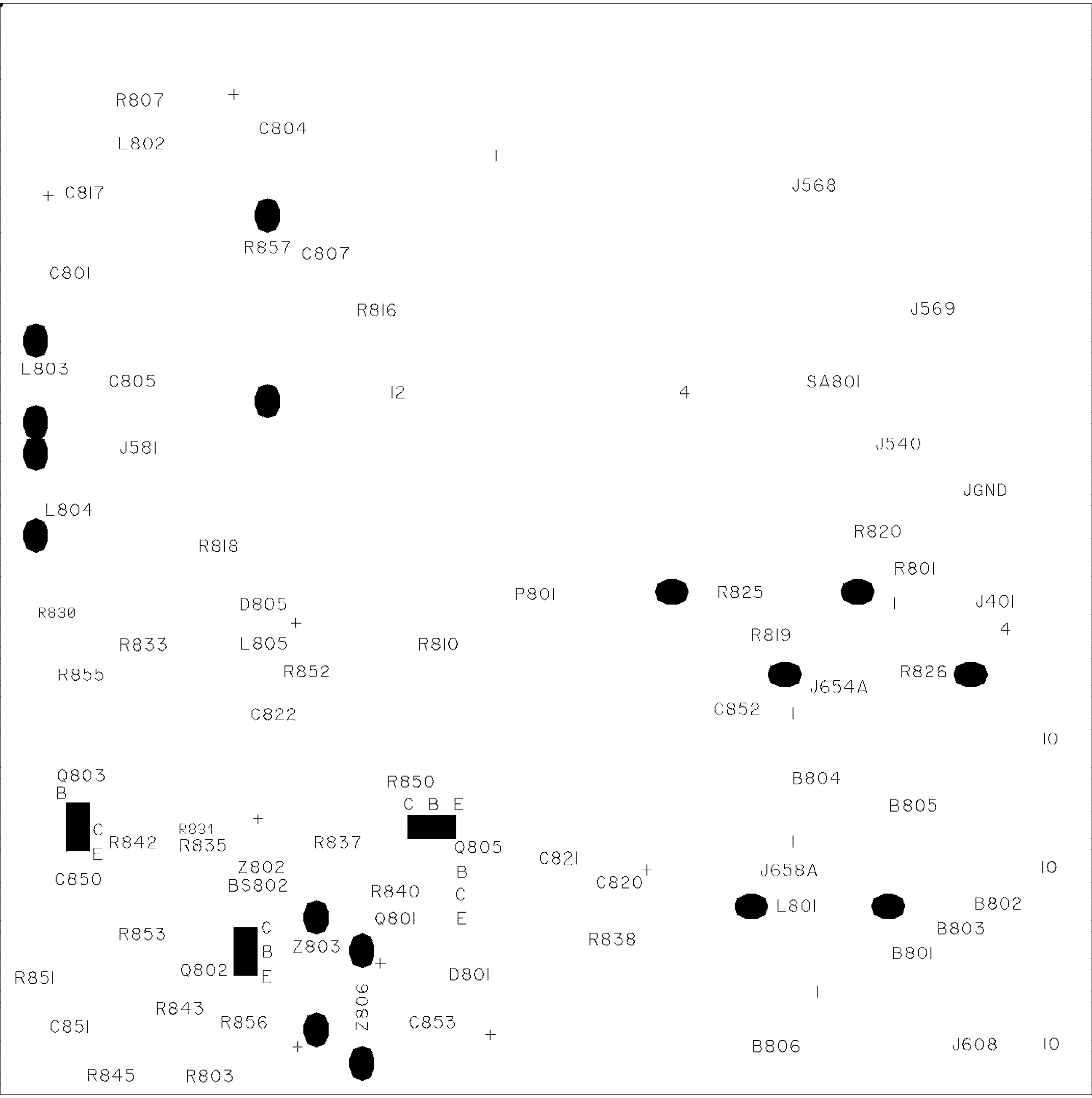
8P5431C(7573) - RED CRT PANEL CBA (BOTTOM VIEW)


C751
R751
Q703
R731
R730
L704
L703
L702
B C E
C750
R745
R753
B702
R733
C701
J580
R743
R703
C717
C705
C B E
Q702
R752
L705
R742
R755
R735
B701
R756
Z703
D705
R718
C722
BS702
Z702
R750
R737
I2
C753
D706
R710
D701
Q705
C B
E
P701
R740
E Q701
C
B
C721
4
C720
SA701
R738
C752
R719
J567
R720
J540A
L701
R716
JGND
C702
IO
R701
J654

8P5431C(7573) - GREEN CRT PANEL CBA (TOP VIEW)


C851
R845
R853
R803
Z803
C853
D801
HS801
B806
10
Q802
E
B
C
1
J608
B801
Z806
Q801
E
C
R838
B803
B802
R851
C850
R842
R843
R856
R840
C821
C820
+
L801
10
Q803
E
C
B
BS802
Z802
R835
B
B
C
E
Q805
1
J658A
B805
B804
J654A
10
1
R850
C822
R837
R831
R855
R852
C852
R826
R833
L805
R810
R819
4
J401
1
D805
P801
R825
R801
R818
R820
JGND
R830
J581
L804
J540
L803
12
4
SA801
R857
C805
C801
R816
J569
C807
C817
+
J568
PHILIPS
L802
1
R807
+C804
3135 013 3024 . 1 01 E BOARD GREEN CRT BOARD
EIA
GR8D

8P5431C(7573) - GREEN CRT PANEL CBA (BOTTOM VIEW)


R807
+
C804
L802
1
J568
+ C817
R857
C807
C801
R816
J569
L803
C805
12
4
SA801
J581
J540
JGND
L804
R818
R820
R801
P801
R825
R830
D805
+
1
J401
4
R833
L805
R810
R819
R855
R852
J654A
R826
C822
C852
1
10
Q803
B
R850
B804
C B E
B805
C
R831
+
R842
R835
R837
1
E
Q805
C821
C850
Z802
B
C820
+
J658A
10
BS802
R840
C
L801
B802
R853
C
Q801
E
B803
Z803
+
B
B801
R851
Q802
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R856
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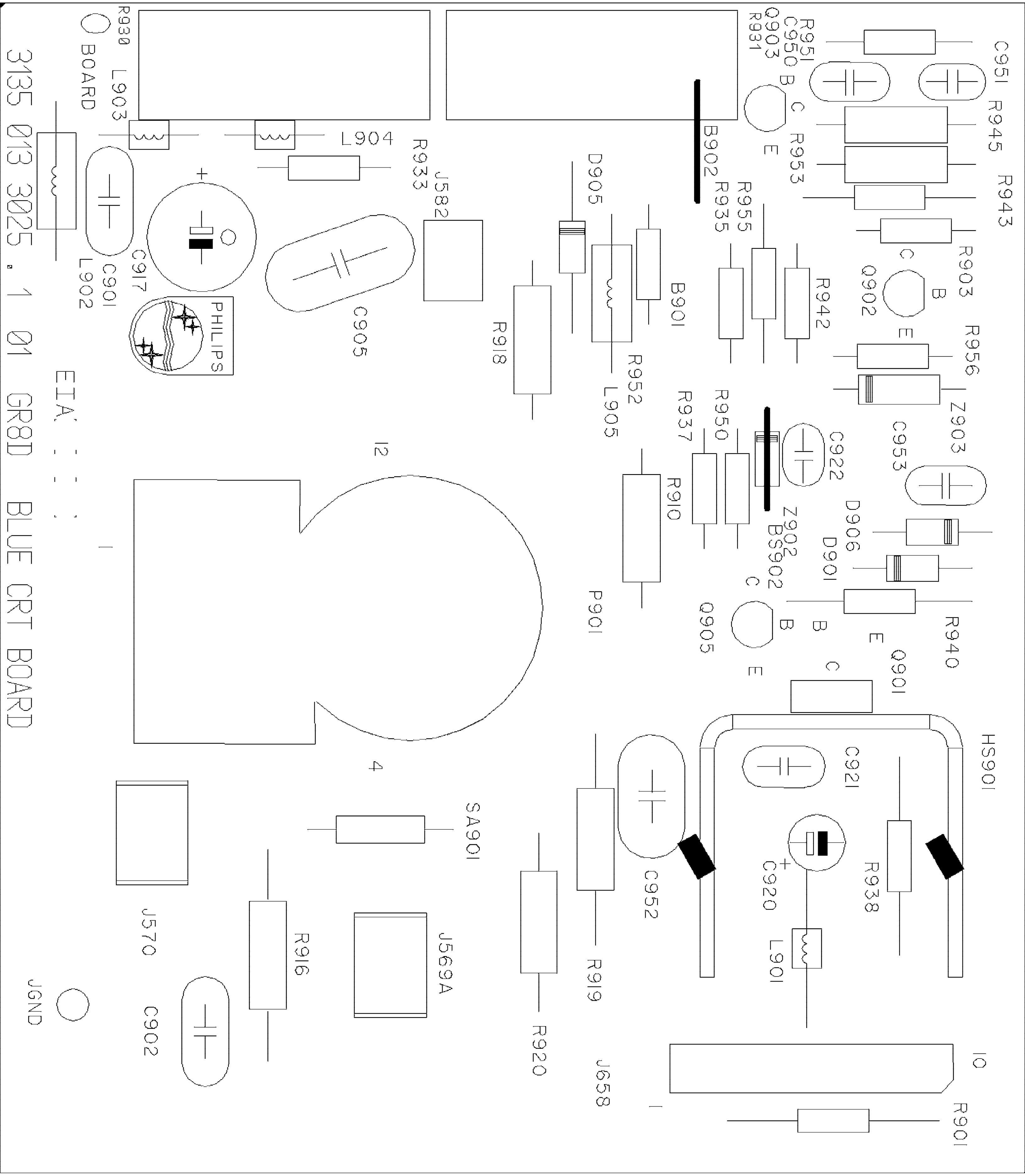
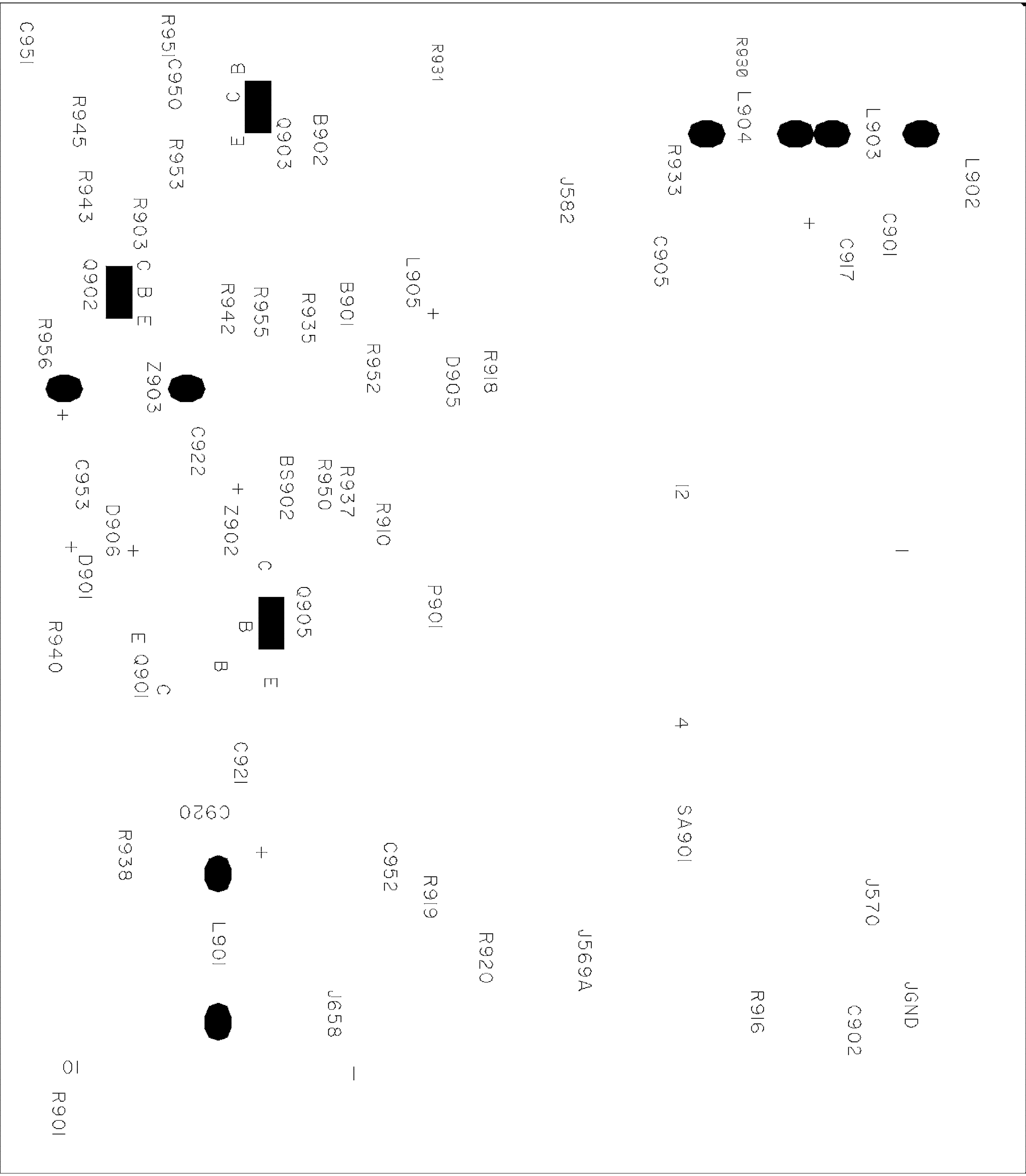
+
+
B806
J608
10
R845
R803


3135 013 3025 . 1 01 GR8D BLUE CRT BOARD
BOARD
EIA
PHILIPS
R930
L903
L904
R933
J582
D905
B902
R935
R955
R951
C950
Q903
R931
B
C
E
C951
R945
R953
R943
R903
Q902
R942
B901
R956
Z903
C953
C922
R950
R937
Z902
BS902
D906
D901
R910
P901
Q905
Q901
R940
HS901
C921
C920
R938
L901
C952
R919
R920
J658
R901
10
SA901
J569A
R916
J570
C902
JGND
C917
C901
L902
C905
R918
R952
L905
12
4

8P5431C(7573) - BLUE CRT PANEL CBA (BOTTOM VIEW)


C951
R951
C950
R945
R953
R943
R903
Q902
C B E
R956
Z903
C922
C953
D906
D901
R940
E Q901
C
B
Q903
B C E
B902
R942
R955
R935
B901
R952
BS902
R950
R937
R910
Z902
C
Q905
B
E
C921
C920
R938
L901
R931
L905
D905
R918
P901
C952
R919
R920
J658
R901
10
J582
R930
L904
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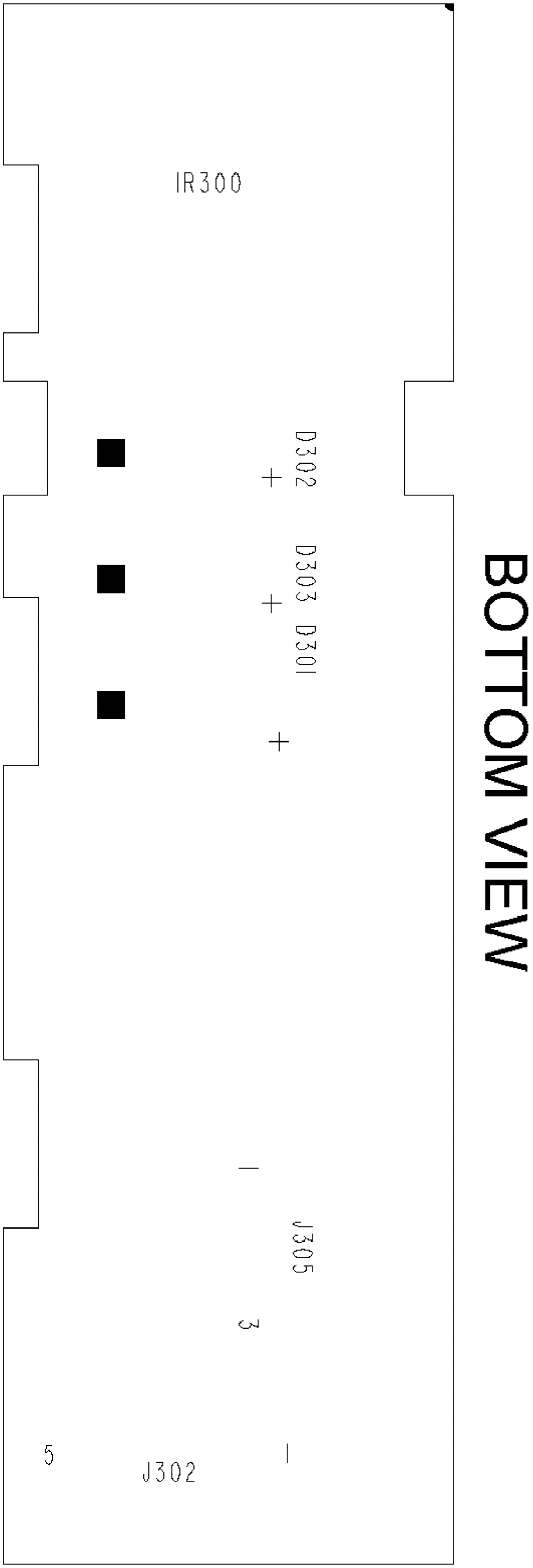
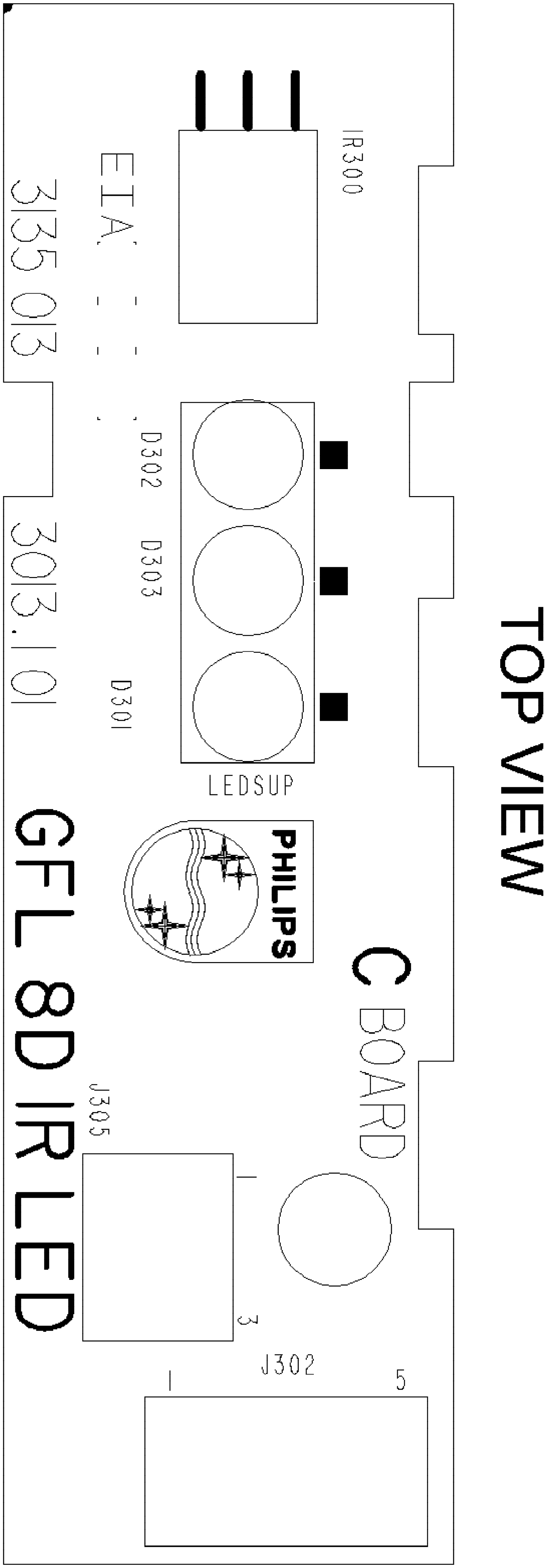
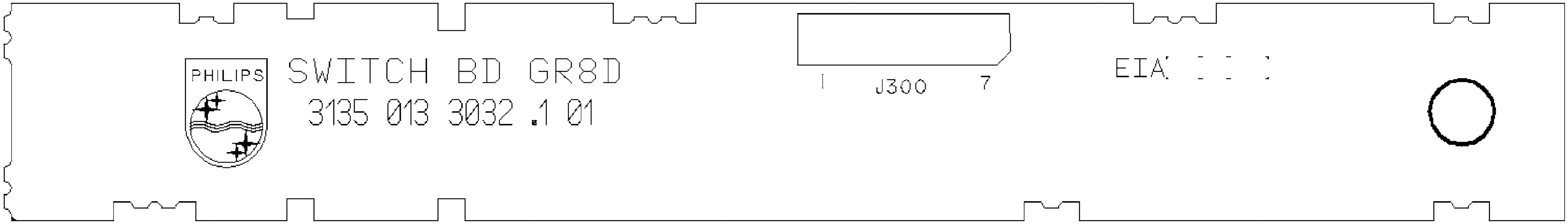
J570
R916
C902
JGND

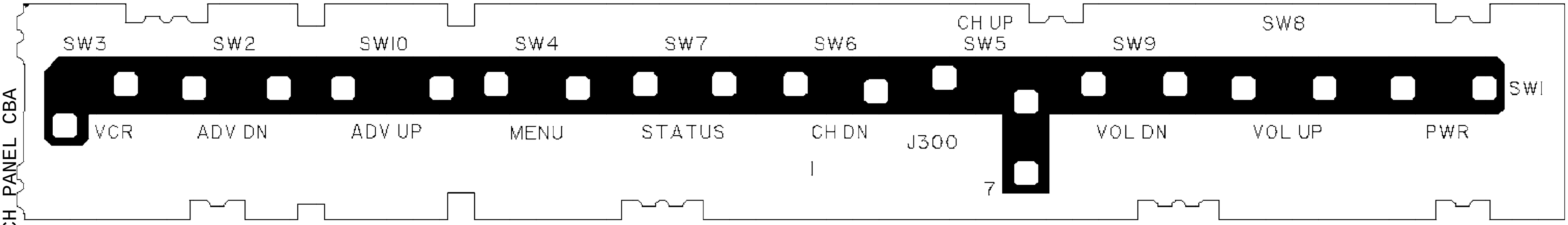

IR300
D302
D303
D301
J305
3
5
J302
1
BOTTOM VIEW


IR300
EIA
3135 013
3013.101
D302
D303
D301
LEDSUP
PHILIPS
GFL 8D IR LED
C BOARD
J305
3
J302
1
5
TOP VIEW

TOP VIEW


PHILIPS
SWITCH BD GR8D
3135 013 3032 .1 01
1
J300
7
EIA

BOTTOM VIEW


SW3
SW2
SW10
SW4
SW7
SW6
CH UP
SW5
SW9
SW8
SW1
VCR
ADV DN
ADV UP
MENU
STATUS
CH DN
J300
1
7
VOL DN
VOL UP
PWR

Philips Consumer Electronics

Technical Service Data

Service and Quality
Service Publications Dept.
One Philips Drive
P.O. Box 14810
Knoxville, TN 37914

Manual 7573
Model no.: 8P5431C
First Publish: 04-19-2004
Rev. Date: 11-12-98
Print Date: 4/19/2004

Pg. SCHEMATIC DIAGRAMS AND PC BOARDS

1. PTV 800 & 805 WIRING DIAGRAM
2. SMALL SIGNAL PANEL - ASG051 & ASG052 - SECTION 1 SCHEMATIC
3. SMALL SIGNAL PANEL - ASG051 & ASG052 - SECTION 2 SCHEMATIC
4. SMALL SIGNAL PANEL - ASG051 & ASG052 - SECTION 3 SCHEMATIC
5. SMALL SIGNAL PANEL - ASG051 & ASG052 - SECTION 4 SCHEMATIC
6. SMALL SIGNAL PANEL - ASG051 & ASG052 - SECTION 5 SCHEMATIC
7. SMALL SIGNAL PANEL - ASG051 & ASG052 - SECTION 6 SCHEMATIC
8. LARGE SIGNAL PANEL - APD019, APD020 & APD021- SECTION 1 SCHEMATIC
9. LARGE SIGNAL PANEL - APD019, APD020 & APD021- SECTION 2 SCHEMATIC
10. LARGE SIGNAL PANEL - APD019, APD020 & APD021- SECTION 3 SCHEMATIC
11. DIGITAL CONVERGENCE PANEL - A10688 - SECTION 1 SCHEMATIC
12. DIGITAL CONVERGENCE PANEL - A10688 - SECTION 2 SCHEMATIC
13. DIGITAL CONVERGENCE PANEL - A10688 - SECTION 3 SCHEMATIC
14. RED CRT PANEL SCHEMATIC
15. GREEN CRT PANEL SCHEMATIC
16. BLUE CRT PANEL SCHEMATIC
17. IR RECEIVER ASSEMBLY SCHEMATIC
18. SWITCH PANEL SCHEMATIC
19. SMALL SIGNAL PANEL - ASG051 & ASG052 - CBA (TOP VIEW)
20. SMALL SIGNAL PANEL - ASG051 & ASG052 - CBA (BOTTOM VIEW)
21. LARGE SIGNAL PANEL CBA (TOP VIEW)
22. LARGE SIGNAL PANEL CBA (BOTTOM VIEW)
23. DIGITAL CONVERGENCE PANEL - CBA (TOP VIEW)
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25. RED CRT PANEL CBA (TOP VIEW)
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29. BLUE CRT PANEL CBA (TOP VIEW)
30. BLUE CRT PANEL CBA (BOTTOM VIEW)
31. IR RECEIVER ASSEMBLY CBA
32. SWITCH PANEL CBA

REFER TO SAFETY GUIDELINES

SAFETY NOTICE: ANY PERSON ATTEMPTING TO SERVICE THIS CHASSIS MUST FAMILIARIZE HIMSELF WITH THE CHASSIS AND BE AWARE OF THE NECESSARY SAFETY PRECAUTIONS TO BE USED WHEN SERVICING ELECTRONIC EQUIPMENT CONTAINING HIGH VOLTAGES.

CAUTION: USE A SEPARATE ISOLATION TRANSFORMER FOR THIS UNIT WHEN SERVICING

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Model no.: 8P5431C
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Safety Notes

REFER TO SAFETY GUIDELINES

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CAUTION: USE A SEPARATE ISOLATION TRANSFORMER FOR THIS UNIT WHEN SERVICING

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GENERAL SAFETY NOTES

IMPORTANT SAFETY NOTICE

Proper service and repair is important to the safe, reliable operation of all Philips Consumer Electronics Company** equipment. The service procedures recommended by Philips and described in this service manual are effective methods of performing service operations. Some of these service operations require the use of tools specially designed for the purpose. The special tools should be used when and as recommended.

It is important to note that this manual contains various **CAUTIONS** and **NOTICES** which should be carefully read in order to minimize the risk of personal injury to service personnel. The possibility exists that improper service methods may damage the equipment. It also is important to understand that these **CAUTIONS** and **NOTICES ARE NOT EXHAUSTIVE**. Philips could not possibly know, evaluate and advise the service trade of all conceivable ways in which service might be done or of the possible hazardous consequences of each way. Consequently, Philips has not undertaken any such broad evaluation. Accordingly, a servicer who uses a service procedure or tool which is not recommended by Philips must first satisfy himself thoroughly that neither his safety nor the safe operation of the equipment will be jeopardized by the service method selected.

** Hereafter throughout this manual, Philips Consumer Electronics Company will be referred to as Philips.

WARNING

Critical components having special safety characteristics are identified with a ⚠ or **"S"** by the Ref. No. in the parts list and enclosed within a broken line* (where several critical components are grouped in one area) along with the safety symbol ⚠ on the schematics or exploded views. Use of substitute replacement parts which do not have the same specified safety characteristics may create shock, fire, or other hazards. Under no circumstances should the original design be modified or altered without written permission from Philips. Philips assumes no liability, express or implied, arising out of any unauthorized modification of design. Servicer assumes all liability.

- Broken Line _____ _ _____ _ _____ _ _____

SAFETY CHECKS

After the original service problem has been corrected, a complete safety check should be made. Be sure to check over the entire set, not just the areas where you have worked. Some previous servicer may have left an unsafe condition, which could be unknowingly passed on to Your customer. Be sure to check all of the following:

FIRE AND SHOCK HAZARD
IMPLOSION
X-RADIATION
LEAKAGE CURRENT COLD CHECK
LEAKAGE CURRENT HOT CHECK
PICTURE TUBE REPLACEMENT

PARTS REPLACEMENT

FIRE AND SHOCK HAZARD

1. Be sure all components are positioned in such a way as to avoid the possibility of adjacent component shorts. This is especially important on those chassis which are transported to and from the service shop.

2. Never release a repaired unit unless all protective devices such as insulators, barriers, covers, strain reliefs, and other hardware have been installed in accordance with the original design.

3. Soldering and wiring must be inspected to locate possible cold solder joints, solder splashes, sharp solder points, frayed leads, pinched leads, or damaged insulation (including the ac cord). Be certain to remove loose solder balls and all other loose foreign particles.

4. Check across-the-line components and other components for physical evidence of damage or deterioration and replace if necessary. Follow original layout, lead length, and dress.

5. No lead or component should touch a receiving tube or a resistor rated at 1 watt or more. Lead tension around protruding metal surfaces or edges must be avoided.

6. Critical components having special safety characteristics are identified with an **'S'** by the Ref. No. in the parts list and enclosed within a broken line* (where several critical components are grouped in one area) along with the safety symbol ⚠ on the schematic diagrams and /or exploded views.

7. When servicing any unit, always use a separate isolation transformer for the chassis. Failure to use a separate isolation transformer may expose you to possible shock hazard, and may cause damage to servicing instruments.

8. Many electronic products use a polarized ac line cord (one wide pin on the plug). Defeating this safety feature may create a potential hazard to the servicer and the user. Extension cords which do not incorporate the polarizing feature should never be used.

9. After reassembly of the unit, always perform an ac leakage test or resistance test from the line cord to all exposed metal parts of the cabinet. Also, check all metal control shafts (with knobs removed), antenna terminals, handles, screws, etc., to be sure the unit may be safely operated without danger of electrical shock.

*** Broken line** ____ _ ____ _ ____ _ ____

IMPLOSION

1. All picture tubes used in current model receivers are equipped with an integral implosion system. Care should always be used, and safety glasses worn, whenever handling any picture tube. Avoid scratching or otherwise damaging the picture tube during installation.

2. Use only replacement tubes specified by the manufacturer.

X-RADIATION

1. Be sure procedures and instructions to all your service personnel cover the subject of X-radiation. Potential sources of X-rays in TV receivers are the picture tube and the high voltage circuits. The basic precaution which must be exercised is to keep the high voltage at the factory recommended level.

2. To avoid possible exposure to X-radiation and electrical shock, only the manufacturer's specified anode connectors must be used.

3. It is essential that the service technician has an accurate HV meter available at all times. The calibration of this meter should be checked periodically against a reference standard.

4. When the HV circuitry is operating properly there is no possibility of an X-radiation problem. High voltage should always be kept at the manufacturer's rated value - no higher - for optimum performance. Every time a color set is serviced, the brightness should be run up and down while monitoring the HV with a meter to be certain that the HV is regulated correctly and does not exceed the specified value. We suggest that you and your technicians review test procedures so that HV and HV regulation are always checked as a standard servicing procedure, and the reason for this prudent routine is clearly understood by everyone. It is important to use an accurate and reliable HV meter. It is recommended that the HV reading be recorded on each customer's invoice, which will demonstrate a proper concern for the customer's safety.

5. When troubleshooting and making test measurements in a receiver with a problem of excessive high voltage, reduce the line voltage by means of a Variac to bring the HV into acceptable limits while troubleshooting. Do not operate the chassis longer than necessary to locate the cause of the excessive HV.

6. New picture tubes are specifically designed to withstand higher operating voltages without creating undesirable X-radiation. It is strongly recommended that any shop test fixture which is to be used with the new higher voltage chassis be equipped with one of the new type tubes designed for this service. Addition of a permanently connected HV meter to the shop test fixture is advisable. The CRT types used in these new sets should never be replaced with any other types, as this may result in excessive X-radiation.

7. It is essential to use the specified picture tube to avoid a possible X-radiation problem.

8. Most TV receivers contain some type of emergency "Hold Down" circuit to prevent HV from rising to excessive levels in the presence of a failure mode. These various circuits should be understood by all technicians servicing them, especially since many hold down circuits are inoperative as long as the receiver performs normally.

LEAKAGE CURRENT COLD CHECK

1. Unplug the ac line cord and connect a jumper between the two prongs of the plug.

2. Turn on the power switch.

3. Measure the resistance value between the jumpered ac plug and all exposed cabinet parts of the receiver, such as screw heads, antennas, and control shafts. When the exposed metallic part has a return path to the chassis, the reading should be between 1 megohm and 5.2 megohms. When the exposed metal does not have a return path to the chassis, the reading must be infinity. Remove the jumper from the ac line cord.

LEAKAGE CURRENT HOT CHECK

1. Do not use an isolation transformer for this test. Plug the completely reassembled receiver directly into the ac outlet.

2. Connect a **1.5k, 1OW resistor** paralleled by a **0.15uF. capacitor** between each exposed metallic cabinet part and a **good earth ground** such as a water pipe, as shown below.

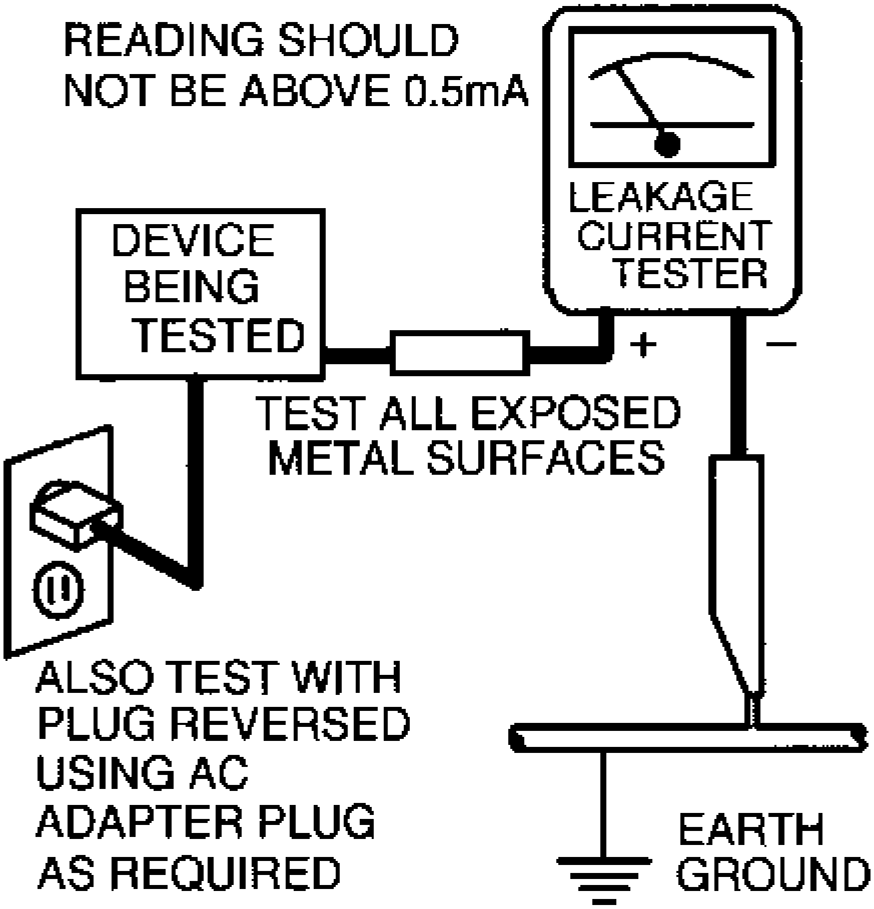
3. Use an ac voltmeter with at least 5000 ohms/volt sensitivity to measure the potential across the resistor.

4. The potential at any point should not exceed 0.75 volts**.** A leakage current tester may be used to make this test; leakage current must not exceed 0.5milliamp. If a measurement is outside of the specified limits, there is a possibility of shock hazard. The receiver should be repaired and rechecked before returning it to the customer.

5**.** **Repeat the above procedure with the ac plug reversed.** (Note: An ac adapter is necessary when a polarized plug is used. Do not defeat the polarizing feature of the plug.)

OR

With the instrument completely reassembled, plug the AC line cord directly into a 120V AC outlet. **(Do not use an isolation transformer during this test.)** Use a leakage current tester or a metering system that complies with American National Standards Institute (ANSI) C101.1 Leakage Current for Appliances and Underwriters Laboratories (UL) 1410, (50.7). **With the instrument AC switch first in the on position and then in the off position, measure from a known earth ground (metal water pipe, conduit, etc.) to all exposed metal parts of the instrument (antennas, handle brackets, metal cabinet, screw heads, metallic overlays, control shafts, etc.), especially any exposed metal parts that offer an electrical return path to the chassis. Any current measured must not exceed 0.5 milliamp. Reverse the instrument power cord plug in the outlet and repeat the test. See graphic below.**


READING SHOULD NOT BE ABOVE 0.5mA
LEAKAGE CURRENT TESTER
DEVICE BEING TESTED
+
−
TEST ALL EXPOSED METAL SURFACES
ALSO TEST WITH PLUG REVERSED USING AC ADAPTER PLUG AS REQUIRED
EARTH GROUND

PICTURE TUBE REPLACEMENT

The primary source of X-radiation in this television receiver is the picture tube. The picture tube utilized in this chassis is specially constructed to limit X-radiation emissions. For continued X-radiation protection, the replacement tube must be the same type as the original, including suffix letter, or a Philips approved type.

PARTS REPLACEMENT

Many electrical and mechanical parts in Philips television sets have special safety related characteristics. These characteristics are often not evident from visual inspection nor can the protection afforded by them necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. The use of a substitute part which does not have the same safety characteristics as the Philips recommended replacement part shown in this service manual may create shock, fire, or other hazards

TV SAFETY NOTES

SAFETY CHECKS
IMPLOSION

X-RADIATION
PICTURE TUBE REPLACEMENT
PARTS REPLACEMENT

WARNING

Before removing the CRT anode cap, turn the unit **OFF** and short the **HIGH VOLTAGE** to the **CRT DAG** ground.

SERVICE NOTE: The **CRT DAG** is not at chassis ground.

TV-VCR COMBI SAFETY NOTES

IMPORTANT SAFETY PRECAUTIONS

Prior to shipment from the factory, our products are strictly inspected for recognized product safety and electrical codes of the countries in which they are to be sold. However, in order to maintain such compliance, it is equally important to implement the following precautions when a set is being serviced.

SAFETY PRECAUTIONS FOR TV CIRCUITS

1. Before returning an instrument to the customer, always make a safety check of the entire instrument, including, but not limited to, the following items:

   a. Be sure that no built-in protective devices are defective or have been defeated during servicing. (1) Protective shields are provided on this chassis to protect both the technician and the customer. Correctly replace all missing protective shields, including any removed for servicing convenience. (2) When reinstalling the chassis and/or other assembly in the cabinet, be sure to put back in place all protective devices, including but not limited to, nonmetallic control knobs, insulating fishpapers, adjustment and compartment covers/shields, and isolation resistor/capacitor networks. Do not operate this instrument or permit it to be operated without all protective devices correctly installed and functioning. Servicers who defeat safety features or fail to perform safety checks may be liable for any resulting damage.

   b. Be sure that there are no cabinet openings through which an adult or child might be able to insert their fingers and contact a hazardous voltage. Such openings include, but are not limited to, (1) spacing between the picture tube and the cabinet mask, (2) excessively wide cabinet ventilation slots, and (3) an improperly fitted and/or incorrectly secured cabinet back cover.

   c. Do a LEAKAGE CURRENT CHECK

   ANY MEASUREMENTS NOT WITHIN THE LIMITS SPECIFIED HEREIN INDICATE A POTENTIAL SHOCK HAZARD THAT MUST BE ELIMINATED BEFORE RETURNING THE INSTRUMENT TO THE CUSTOMER OR BEFORE CONNECTING THE ANTENNA OR ACCESSORIES.

d. **X-Radiation and High Voltage Limits** - Because the picture tube is the primary potential source of X-radiation in solid-state TV receivers, it is specially constructed to prohibit X-radiation emissions. For continued X-radiation protection, the replacement picture tube must be the same type as the original. Also, because the picture tube shields and mounting hardware perform an X-radiation protection function, they must be correctly in place. High voltage must be measured each time servicing is performed that involves B+, horizontal deflection or high voltage. Correct operation of the X-radiation protection circuits also must be reconfirmed each time they are serviced. (X-radiation protection circuits also may be called "horizontal disable" or "hold down.") Read and apply the high voltage limits and, if the chassis is so equipped, the X-radiation protection circuit specifications given on instrument labels and in the **Product Safety & X-Radiation** Warning note on the service data chassis schematic. High voltage is maintained within specified limits by close tolerance safety-related components/adjustments in the high-voltage circuit. If high voltage exceeds specified limits, check each component specified on the chassis schematic and take corrective action.

2. Read and comply with all caution and safety-related notes on or inside the receiver cabinet, on the receiver chassis, or on the picture tube.

3. **Design Alteration Warning** - Do not alter or add to the mechanical or electrical design of this TV receiver. Design alterations and additions, including, but not limited to circuit modifications and the addition of items such as auxiliary audio and/or video output connections, might alter the safety characteristics of this receiver and create a hazard to the user. Any design alterations or additions will void the manufacturer's warranty and may make you, the servicer, responsible for personal injury or property damage resulting therefrom.

4**. Picture Tube Implosion Protection Warning** - The picture tube in this receiver employs integral implosion protection. For continued implosion protection, replace the picture tube only with one of the same type number. Do not remove, install, or otherwise handle the picture tube in any manner without first putting on shatterproof goggles equipped with side shields. People not so equipped must be kept safely away while picture tubes are handled. Keep the picture tube away from your body. Do not handle the picture tube by its neck. Some "in-line" picture tubes are equipped with a permanently attached deflection yoke; because of potential hazard, do not try to remove such "permanently attached" yokes from the picture tube.

5. **Hot Chassis Warning**

a. Some TV receiver chassis are electrically connected directly to one conductor of the ac power cord and may be serviced safely without an isolation transformer only if the ac power plug is inserted so that the chassis is connected to the ground side of the ac power source. To confirm that the ac power plug is inserted correctly, with an ac voltmeter, measure between the chassis and a known earth ground. If a voltage reading in excess of 1.OV is obtained, remove and reinsert the ac power plug in the opposite polarity and again measure the voltage potential between the chassis and a known earth ground.

b. Some TV receiver chassis normally have 85Vac (RMS) between chassis and earth ground regardless of the ac plug polarity. This chassis can be safety-serviced only with an isolation transformer inserted in the power line between the receiver and the ac power source, for both personnel and test equipment protection. Some TV receiver chassis have a secondary ground system in addition to the main chassis ground. This secondary ground system is not isolated from the ac power line. The two ground systems are electrically separated by insulation material that must not be defeated or altered.

6. Observe original lead dress. Take extra care to assure correct lead dress in the following areas: **a.** near sharp edges, **b.** near thermally hot parts - be sure that leads and components do not touch

thermally hot parts, **c.** the ac supply, **d.** high voltage, and **e.** antenna wiring. Always inspect in all areas for pinched, out of place, or frayed wiring. Check ac power cord for damage.

7. Components, parts, and/or wiring that appear to have overheated or are otherwise damaged should be replaced with components, parts, or wiring that meet original specifications. Additionally, determine the cause of overheating and/or damage and, if necessary, take corrective action to remove any potential safety hazard.

PRECAUTIONS DURING SERVICE

A. Parts identified by the ⚠ symbol are critical for safety. Replace only with part number specified.

B. In addition to safety, other parts and assemblies are specified for conformance with regulations applying to spurious radiation. These must also be replaced only with specified replacements.
Examples: RF converters, RF cables, noise blocking capacitors, and noise blocking filters, etc.

C. Use specified internal wiring. Note especially:
  1) Wires covered with PVC tubing
  2) Double insulated wires
  3) High voltage leads

D. Use specified insulating materials for hazardous live parts. Note especially:
  1) Insulation Tape
  2) PVC tubing
  3) Spacers
  4) Insulators for transistors

E. When replacing ac primary side components (transformers, power cord, etc.), wrap ends of wires securely about the terminals before soldering.

F. Observe that the wires do not contact heat producing parts (heatsinks, oxide metal film resistors, fusible resistors, etc.)

G. Check that replaced wires do not contact sharp edged or pointed parts.

H. When a power cord has been replaced, check that 10-15 kg of force in any direction will not loosen it.

I. Also check areas surrounding repaired locations.

J. Use care that foreign objects (screws, solder droplets, etc.) do not remain inside the set.

K**. Crimp type wire connector**
When replacing the power transformer in sets where the connections between the power cord and power transformer primary lead wires are performed using crimp type connectors, in order to prevent shock hazards, perform carefully and precisely the following steps.

Replacement procedure
1) Remove the old connector by cutting the wires at a point close to the connector. **Important:** Do not re-use a connector (discard it).

2) Strip about 15 mm of the insulation from the ends of the wires. If the wires are stranded, twist the strands to avoid frayed conductors.
3) Align the lengths of the wires to be connected. Insert the wires fully into the connector.
4) Use the crimping tool to crimp the metal sleeve at the center position. Be sure to crimp fully to the complete closure of the tool.

L. When connecting or disconnecting the VCR connectors, first, disconnect the ac plug from the ac supply socket.

SAFETY CHECK AFTER SERVICING

Examine the area surrounding the repaired location for damage or deterioration. Observe that screws, parts and wires have been returned to original positions. Afterwards, perform the following tests and confirm the specified values in order to verify compliance with safety standards.

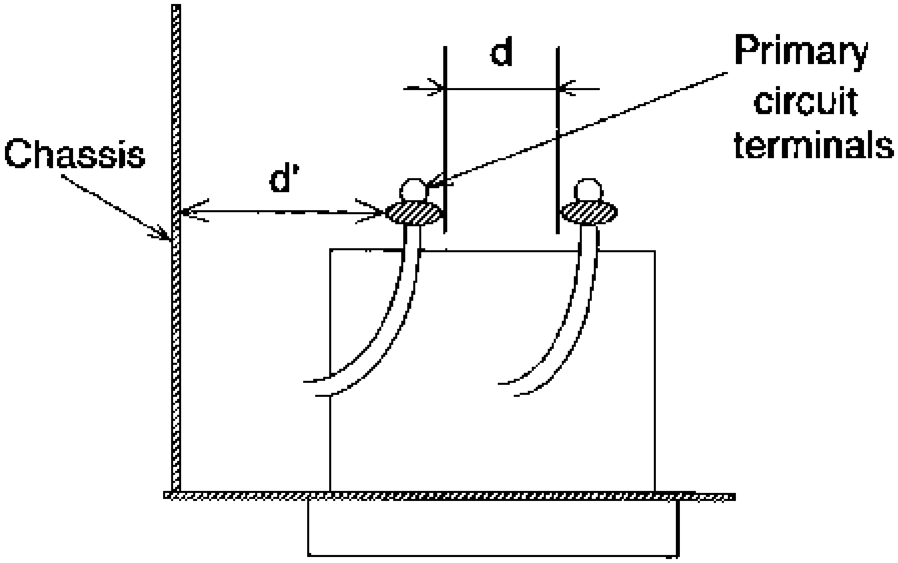
1. **Clearance Distance**

When replacing primary circuit components, confirm specified clearance distance (d) and (d') between soldered terminals, and between terminals and surrounding metallic parts. (See graphic bllow)

Table 1 : Ratings for selected area

AC Line Voltage	Region	Clearance Distance (d) (d')
110 to 130 V	USA or CANADA	> 3.2 mm (0.126 inches)

Note: This table is unofficial and for reference only. Be sure to confirm the precise values.



2. LEAKAGE CURRENT CHECKS

VCR SAFETY NOTES

FIRE & SHOCK HAZARD (VCR)

1. Be sure that all components are positioned in such a way to avoid possibility of shorts to adjacent components. This is especially important on those chassis which are transported to and from the repair shop.

2. Always replace all protective devices such as insulators and barriers after working on a set.

3. Check for damaged insulation on wires including the ac cord.

4. Check across-the-line components for damage and replace if necessary.

5. After re-assembly of the unit, always perform an ac leakage test on the exposed metallic parts of the cabinet such as the knobs, antenna terminals, etc. to be sure the set is safe to operate without danger of electrical shock. **Do not use a line isolation transformer during this test.** Use an ac voltmeter having 5000 ohms per volt or more sensitivity in the following manner: Connect a 1500 ohm 10 wan resistor, paralleled by 0.15 MFD ac type capacitor, between a known good earth ground (water pipe, conduit, etc.) and the exposed metallic parts, one at a time. Measure the ac voltage across the combination 1500 ohm resistor and 0.15 MFD capacitor. Reverse the ac plug on the set and repeat ac voltage measurements again for each exposed metallic part. Voltage measured must not exceed O.6 volts R.M.S. This corresponds to 0.4 milliamp ac. Any value exceeding this limit constitutes a potential shock hazard and must be corrected immediately.

GENERAL

Power Supply-This receiver is designed for operation on 120 Volts, 6OHz alternating current (ac) only. Never connect to a supply having a different frequency or voltage.

IMPORTANT NOTICE

This device employs many circuits, components, and mechanical parts designed for protection against fire, shock and RF interference. For continued safety any servicing should be performed by qualified personnel and exact replacement parts should be used. Under no circumstances should the original design be altered.

PRODUCT SAFETY GUIDELINES FOR ALL PRODUCTS

CAUTION: Do not modify any circuit. Service work should be performed only after you are thoroughly familiar with all of the following safety checks. Risk of potential hazards and injury to the user increases if safety checks are not adhered to.
USE A SEPARATE ISOLATION TRANSFORMER FOR THIS UNIT WHEN SERVICING.

PREVENTION OF ELECTROSTATIC DISCHARGE (ESD)

Some semiconductor solid state devices can be damaged easily by static electricity. Such components commonly are called Electrostatically Sensitive (ES) Devices, Examples of typical ES devices are integrated circuits and some field-effect transistors and semiconductor "chip" components. The following techniques should be used to help reduce the incidence of component damage caused by electrostatic discharge (ESD).

1. Immediately before handling any semiconductor component or semiconductor-equipped assembly, drain off any ESD on your body by touching a known earth ground. Alternatively, obtain and wear a commercially available discharging ESD wrist strap, which should be removed for potential shock reasons prior to applying power to the unit under test.

2. After removing an electrical assembly equipped with ES devices, place the assembly on a conductive surface such as aluminum foil, to prevent electrostatic charge buildup or exposure of the assembly.

3. Use only a grounded-tip soldering iron to solder or unsolder ES devices.

4. Use only an anti-static solder removal device. Some solder removal devices not classified as "antistatic (ESD protected)" can generate an electrical charge sufficient to damage ES devices.

5. Do not use freon·propelled chemicals. These can generate electrical charges sufficient to damage ES devices.

6. Do not remove a replacement ES device from its protective package until immediately before you are ready to install it (Most replacement ES devices are packaged with leads electrically shorted together by conductive foam, aluminum foil or comparable conductive material).

7. Immediately before removing the protective material from the leads of a replacement ES device, touch the protective material to the chassis or circuit assembly into which the device will be installed.

CAUTION : Be sure no power is applied to the chassis or circuit and observe all other safety precautions.

8. Minimize bodily motions when handling unpackaged replacement ES devices. (Otherwise harmless motion such as the brushing together of your clothes fabric or the lifting of your feet from a carpeted floor can generate static electricity (ESD) sufficient to damage an ES device.)

NOTE to CATV system Installer:
This reminder is provided to call the CATV system installer's attention to article 820-22 of the NEC that provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as practical.

Philips Consumer Electronics

Technical Service Data

Service and Quality
Service Publications Dept.
One Philips Drive
P.O. Box 14810
Knoxville, TN 37914

Manual 7573
Model no.: 8P5431C
First Publish: 04-19-2004
Rev. Date: 11-12-98
Print Date: 4/19/2004

Mechanical Diagrams

REFER TO SAFETY GUIDELINES

SAFETY NOTICE: ANY PERSON ATTEMPTING TO SERVICE THIS CHASSIS MUST FAMILIARIZE HIMSELF WITH THE CHASSIS AND BE AWARE OF THE NECESSARY SAFETY PRECAUTIONS TO BE USED WHEN SERVICING ELECTRONIC EQUIPMENT CONTAINING HIGH VOLTAGES.

CAUTION: USE A SEPARATE ISOLATION TRANSFORMER FOR THIS UNIT WHEN SERVICING

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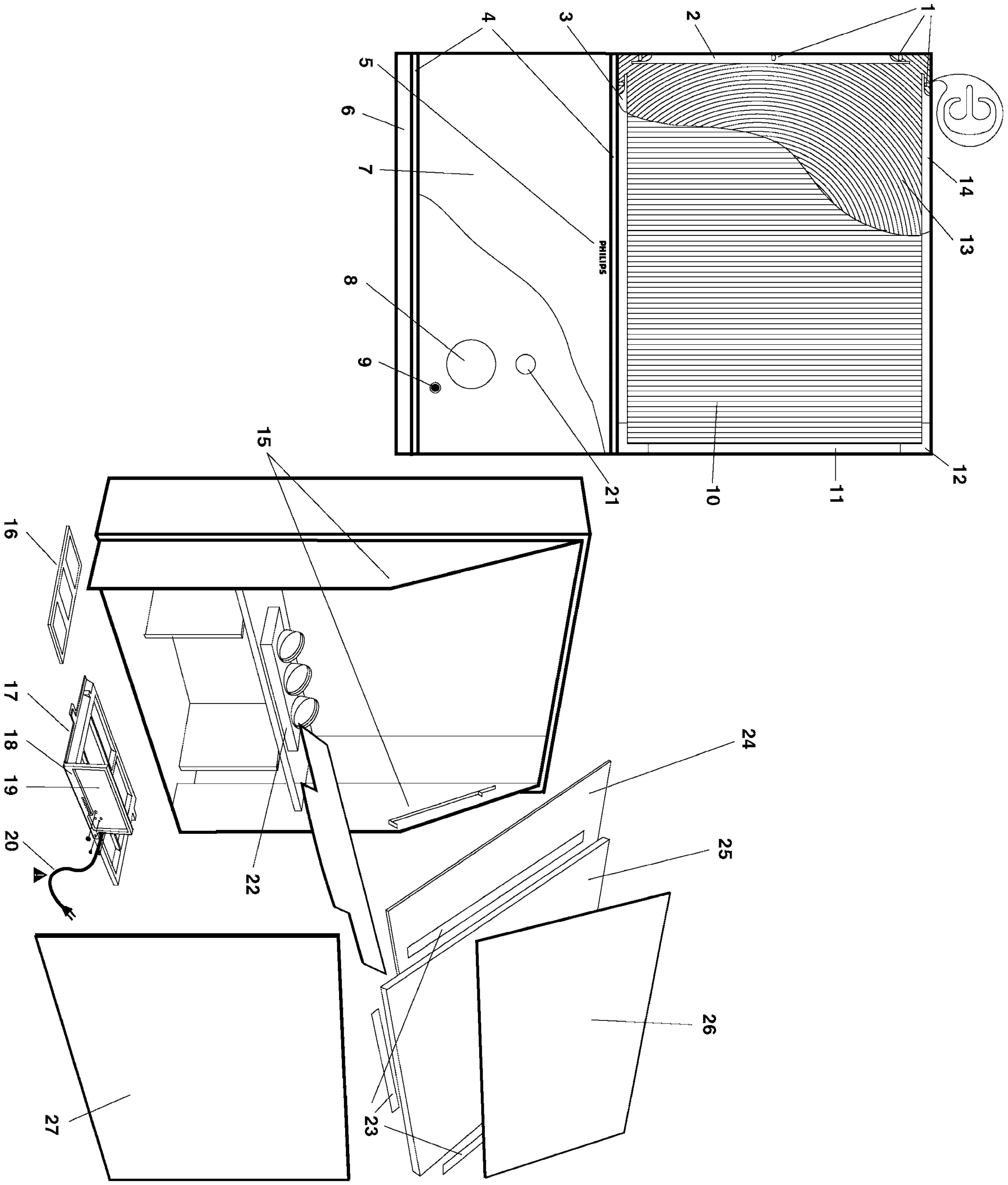
CABINET EXPLODED VIEW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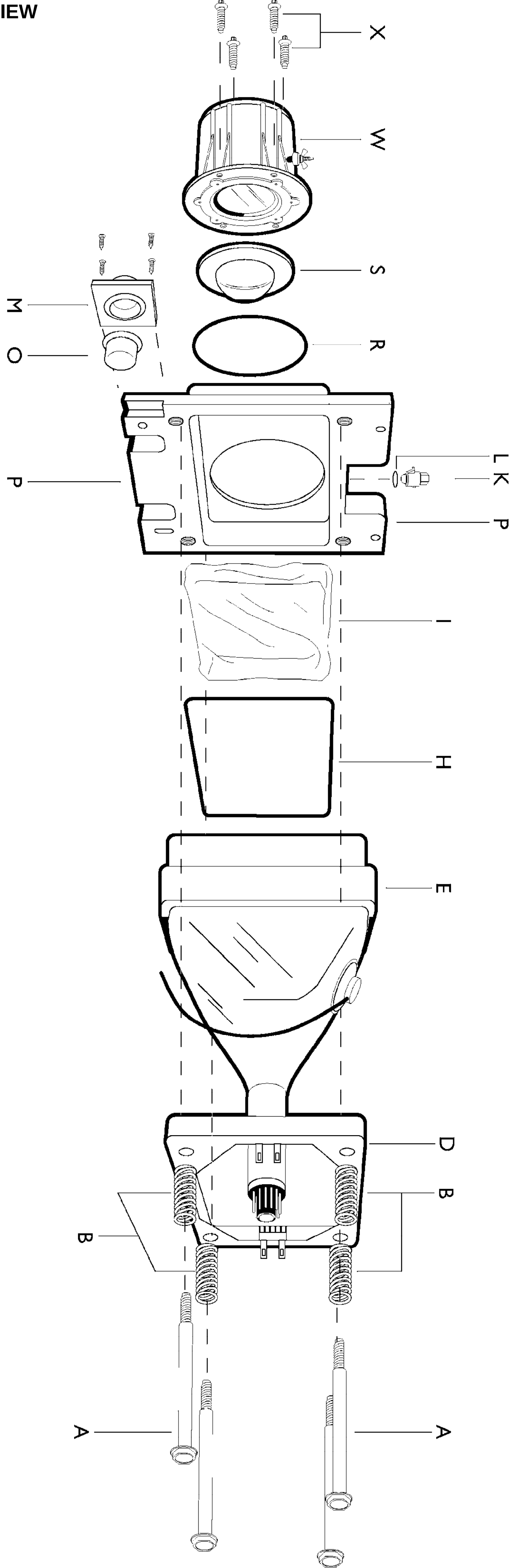
CRT LENS ASSEMBLY EXPLODED VIEW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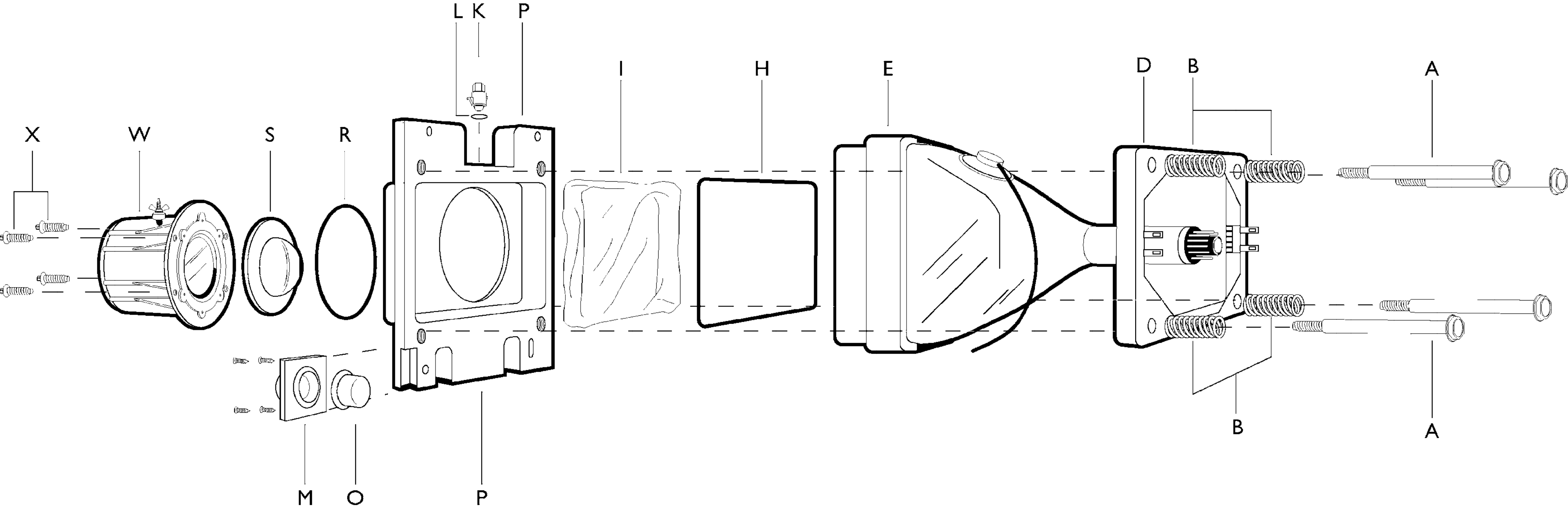
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Technical Service Data

Service and Quality
Service Publications Dept.
One Philips Drive
P.O. Box 14810
Knoxville, TN 37914

Parts List

REFER TO SAFETY GUIDELINES

SAFETY NOTICE: **ANY PERSON ATTEMPTING TO SERVICE THIS CHASSIS MUST FAMILIARIZE HIMSELF WITH THE CHASSIS AND BE AWARE OF THE NECESSARY SAFETY PRECAUTIONS TO BE USED WHEN SERVICING ELECTRONIC EQUIPMENT CONTAINING HIGH VOLTAGES.**

CAUTION: USE A SEPARATE ISOLATION TRANSFORMER FOR THIS UNIT WHEN SERVICING

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CBA's

	CBA's	
CBA	Large Signal Panel	4835 219 77751
CBA	Small Signal Panel	4835 219 77756
CBA	Digital Convergence Panel	4835 219 77788
CBA	Green CRT Panel	4835 219 77782
CBA	Red CRT Panel	4835 219 77783
CBA	Blue CRT Panel	4835 219 77784
CBA	Customer Control Assembly	4835 219 77764
CBA	IR Receiver Panel	0000 00A RR023
CBA	Switch Panel	4835 219 77786
CBA	Remote Transmitter UR714	4835 219 17699

CONVERGENCE PANEL

	CONVERGENCE PANEL	
C11	1000uF., 50V, Electrolytic	3198 026 51020
C13	470uF., 25V, Electrolytic.	4835 124 47576
C14	100uF., 25V, Electrolytic.	3198 025 31010
C16	100pF., 5%, 50V, Ceramic	3198 016 01010
C17	100pF., 5%, 50V, Ceramic	3198 016 01010
C19	0.1uF., 50V, Ceramic	3198 023 21040
C20	0.01uF.,10%, 100V, Polyester	4835 121 47232
C21	2700pF.,10%, 100V, Polyester	4835 122 47487
C22	220pF., 5%, 50V, Ceramic	3198 016 02210
C23	220pF., 5%, 50V, Ceramic	3198 016 02210
C24	10pF., 5%, 50V, Ceramic.	3198 016 01090
C25	0.1uF., 50V, Ceramic	3198 023 21040
C29	0.1uF., 50V, Ceramic	3198 023 21040
C30	0.1uF., 20%, 50V, Ceramic.	2238 581 16741
C31	27pF., 5%, 50V, Ceramic.	3198 016 02790
C32	330pF., 10%, 50V, Ceramic Disc	3198 019 13310
C33	2.2uF., 20%, 50V, Electrolytic	3198 025 52280
C34	0.1uF., 50V, Ceramic	3198 023 21040
C35	220uF., 25V, Electrolytic.	3198 025 32210
C36	22uF., 20%, 50V, Electrolytic.	3198 025 52290
C37	0.1uF., 20%, 50V, Ceramic.	2238 581 16741
C38	1000uF., 25V, Electrolytic	3198 026 31020
C39	27pF., 5%, 50V, Ceramic.	3198 016 02790
C41	2.2uF., 20%, 50V, Electrolytic	3198 025 52280
C42	0.1uF., 50V, Ceramic	3198 023 21040
C50	0.1uF., 50V, Ceramic	3198 023 21040
C51	100pF., 5%, 50V, Ceramic	3198 016 01010
C52	0.1uF., 20%, 50V, Ceramic.	2238 581 16741
C71	100pF., 5%, 50V, Ceramic	3198 016 01010
C72	100pF., 5%, 50V, Ceramic	3198 016 01010
C73	100pF., 5%, 50V, Ceramic	4835 122 87025
C74	27pF., 5%, 50V, Ceramic.	3198 016 02790
C81	1000uF., 50V, Electrolytic	3198 026 51020
C83	470uF., 25V, Electrolytic.	4835 124 47576
C84	100uF., 25V, Electrolytic.	3198 025 31010
C85	0.1uF., 63V, Metalized Polyester	4835 121 47602
C86	0.1uF., 63V, Metalized Polyester	4835 121 47602
C87	1000uF., 16V, Electrolytic	3198 026 21020
C88	0.1uF., 50V, Ceramic	3198 023 21040
C100	0.022uF., 5%, 50V, Polyester.	4835 122 47091
C101	39pF., 50V, Ceramic Disc	4835 122 47651
C106	2.2uF., 20%, 50V, Electrolytic	3198 025 52280
C107	2.2uF., 20%, 50V, Electrolytic	3198 025 52280
C108	2.2uF., 20%, 50V, Electrolytic	3198 025 52280
C109	2.2uF., 20%, 50V, Electrolytic	3198 025 52280
C110	0.1uF., 50V, Ceramic	3198 023 21040
C111	0.1uF., 50V, Ceramic	3198 023 21040
C112	270pF., 10%, 50V, Ceramic Disc	4835 122 47668
C127	0.22uF., 100V, Metalized Polyester	4835 121 47038
C150	0.022uF.,5%, 50V, Polyester	4835 122 47091
C151	39pF., 50V, Ceramic Disc	4835 122 47651
C152	0.01uF.,10%, 100V, Polyester	4835 121 47232
C153	0.01uF.,10%, 100V, Polyester	4835 121 47232
C157	2.2uF., 20%, 50V, Electrolytic	3198 025 52280
C158	2.2uF., 20%, 50V, Electrolytic	3198 025 52280
C162	270pF., 10%, 50V, Ceramic Disc	4835 122 47668
C173	470pF., 5%, 50V, Ceramic	3198 016 04710
C174	470pF., 5%, 50V, Ceramic	3198 016 04710
C175	0.1uF., 50V, Ceramic	3198 023 21040
C176	0.1uF., 50V, Ceramic	3198 023 21040
C177	0.22uF., 100V, Metalized Polyester	4835 121 47038
C180	1uF., 20%, 50V, Electrolytic	3198 025 51080
C200	0.022uF., 5%, 50V, Polyester.	4835 122 47091
C201	39pF., 50V, Ceramic Disc	4835 122 47651
C206	2.2uF., 20%, 50V, Electrolytic	3198 025 52280
C207	2.2uF., 20%, 50V, Electrolytic	3198 025 52280
C208	2.2uF., 20%, 50V, Electrolytic	3198 025 52280
C209	2.2uF., 20%, 50V, Electrolytic	3198 025 52280
C210	0.1uF., 50V, Ceramic	3198 023 21040
C211	0.1uF., 50V, Ceramic	3198 023 21040
C212	270pF., 10%, 50V, Ceramic Disc	4835 122 47668
C227	0.22uF., 100V, Metalized Polyester	4835 121 47038
C250	0.022uF.,5%, 50V, Polyester	4835 122 47091
C251	39pF., 50V, Ceramic Disc	4835 122 47651
C252	0.01uF.,10%, 100V, Polyester	4835 121 47232
C253	0.01uF.,10%, 100V, Polyester	4835 121 47232
C257	2.2uF., 20%, 50V, Electrolytic	3198 025 52280
C258	2.2uF., 20%, 50V, Electrolytic	3198 025 52280
C262	270pF., 10%, 50V, Ceramic Disc	4835 122 47668
C265	0.1uF., 63V, Metalized Polyester	4835 121 47602
C273	470pF., 5%, 50V, Ceramic	3198 016 04710
C274	470pF., 5%, 50V, Ceramic	3198 016 04710
C275	0.1uF., 50V, Ceramic	3198 023 21040
C276	0.1uF., 50V, Ceramic	3198 023 21040
C277	0.22uF., 100V, Metalized Polyester	4835 121 47038
C280	1uF., 20%, 50V, Electrolytic	3198 025 51080
C300	0.022uF.,5%, 50V, Polyester	4835 122 47091
C301	39pF., 50V, Ceramic Disc	4835 122 47651
C306	2.2uF., 20%, 50V, Electrolytic	3198 025 52280
C307	2.2uF., 20%, 50V, Electrolytic	3198 025 52280
C308	2.2uF., 20%, 50V, Electrolytic	3198 025 52280
C309	2.2uF., 20%, 50V, Electrolytic	3198 025 52280
C310	0.1uF., 50V, Ceramic	3198 023 21040
C311	0.1uF., 50V, Ceramic	3198 023 21040
C312	270pF., 10%, 50V, Ceramic Disc	4835 122 47668
C327	0.22uF., 100V, Metalized Polyester	4835 121 47038
C350	0.022uF.,5%, 50V, Polyester	4835 122 47091
C351	39pF., 50V, Ceramic Disc	4835 122 47651
C352	0.01uF.,10%, 100V, Polyester	4835 121 47232
C353	0.01uF.,10%, 100V, Polyester	4835 121 47232
C357	2.2uF., 20%, 50V, Electrolytic	3198 025 52280
C358	2.2uF., 20%, 50V, Electrolytic	3198 025 52280
C362	270pF., 10%, 50V, Ceramic Disc	4835 122 47668
C373	470pF., 5%, 50V, Ceramic	3198 016 04710
C374	470pF., 5%, 50V, Ceramic	3198 016 04710
C375	0.1uF., 50V, Ceramic	3198 023 21040
C376	0.1uF., 50V, Ceramic	3198 023 21040
C377	0.22uF., 100V, Metalized Polyester	4835 121 47038
C380	1uF., 20%, 50V, Electrolytic	3198 025 51080
R10	8.2k, 5%, 1/10W, Carbon Film	4835 111 37448
R11	470 ohm, 5%, 1/2W, Metal Film.	4835 116 57723
R12	2.2k, 5%, 1/10W, Carbon Film	4835 111 37234
R13	15k, 5%, 1/10W, Carbon Film.	4835 111 37458
R14	3.3k, 5%, 1/10W, Carbon Film	4835 111 37247
R18	100 ohm, 5%, 1/10W, Carbon Film.	4835 111 37432
R19	100 ohm, 5%, 1/10W, Carbon Film.	4835 111 37432
R20	100 ohm, 5%, 1/2W, Metal Film.	4835 116 57684
R21	100 ohm, 5%, 1/10W, Carbon Film.	4835 111 37432
R22	3.3k, 5%, 1/2W, Metal Film	4835 116 57714
R24	1.5k, 5%, 1/2W, Metal Film	4835 116 57697
R25	33k, 5%, 1/10W, Carbon Film.	4835 111 37248
R27	47k, 5%, 1/10W, Carbon Film.	4835 111 27052
R28	2.7k, 5%, 1/10W, Carbon Film	4835 111 27076
R29	220 ohm, 5%, 1/2W, Metal Film.	4835 116 57705
R30	1.5k, 5%, 1/10W, Carbon Film	4835 111 37437
R31	100 ohm, 5%, 1/10W, Carbon Film.	4835 111 37432
R32	100 ohm, 5%, 1/2W, Metal Film.	4835 116 57684
R33	47k, 5%, 1/10W, Carbon Film.	4835 111 27052
R34	47k, 5%, 1/10W, Carbon Film.	4835 111 27052
R35	1k, 5%, 1/10W, Carbon Film	4822 051 10102
R35	1k, 5%, 1/10W, Carbon Film.	4822 051 10102
R36	100 ohm, 5%, 1/2W, Metal Film.	4835 116 57684
R37	10k, 5%, 1/10W, Carbon Film.	4835 111 37216
R38	10k, 5%, 1/10W, Carbon Film.	4835 111 37216
R41	47k, 5%, 1/10W, Carbon Film.	4835 111 27052
R42	100 ohm, 5%, 1/10W, Carbon Film.	4835 111 37432
R47	10k, 5%, 1/10W, Carbon Film.	4835 111 37216
R48	470 ohm, 5%, 1/2W, Metal Film.	4835 116 57723
R49	2.2k, 5%, 1/2W, Metal Film	4835 110 47006
R54	100 ohm, 5%, 3W, Metal Oxide	2120 105 92503
R55	1.5k, 5%, 1/2W, Metal Film	4835 116 57697
R56	100 ohm, 5%, 3W, Metal Oxide	2120 105 92503
R57	1.5k, 5%, 1/2W, Metal Film	4835 116 57697
R78	6.8k, 5%, 1/10W, Carbon Film	4835 111 37272
R79	2.4k, 5%, 1/2W, Metal Film	2322 187 53242
R80	10k, 5%, 1/2W, Metal Film.	4835 116 57686
R82	1k, 5%, 1/10W, Carbon Film	4822 051 10102
R82	1k, 5%, 1/10W, Carbon Film.	4822 051 10102
R83	47k, 5%, 1/10W, Carbon Film.	4835 111 27052
R84	47k, 5%, 1/2W, Metal Film.	4835 116 57724
R86	100 ohm, 5%, 1/2W, Metal Film.	4835 116 57684
R87	100 ohm, 5%, 1/2W, Metal Film.	4835 116 57684
R88	100 ohm, 5%, 1/2W, Metal Film.	4835 116 57684
R89	100 ohm, 5%, 1/2W, Metal Film.	4835 116 57684
R90	10k, 5%, 1/10W, Carbon Film.	4835 111 37216
R91	100 ohm, 5%, 1W, Metal Oxide	2120 105 90191
R92	10k, 5%, 1/10W, Carbon Film.	4835 111 37216
R93	470 ohm, 5%, 1/2W, Metal Film.	4835 116 57723
R94	1.5k, 5%, 1/2W, Metal Film	4835 116 57697
R95	1.5k, 5%, 1/2W, Metal Film	4835 116 57697
R98	2.94k, 1%, 0.4W, Metal Film.	4835 116 57649
R99	470 ohm, 5%, 1/2W, Metal Film.	4835 116 57723
R100	1.3k, 5%, 1/2W, Metal Film	4835 116 57694
R101	2.7k, 5%, 1/10W, Carbon Film	4835 111 27076
R102	220 ohm, 5%, 1/2W, Metal Film.	4835 116 57705
R103	820 ohm, 5%, 1/2W, Metal Film.	4835 116 57741
R104	6.8k, 5%, 1/2W, Metal Film	4835 116 57736
R105	1.2k, 5%, 1/10W, Carbon Film	4835 111 27042
R106	470 ohm, 5%, 1/10W, Carbon Film.	4835 111 37259

S = Safety Part Be sure to use exact replacement part.

R107	330 ohm, 5%, 1/10W, Carbon Film	4835 111 37443
R108	150 ohm, 5%, 1/3W, Metal Film	4835 116 57151
R109	100 ohm, 5%, 1/3W, Metal Film	4835 116 87002
R110	18k, 5%, 1/2W, Metal Film	4835 110 57187
R111	5.1 ohm, 5%, 1W, Metal Oxide	4835 116 57121
R112	5.1 ohm, 5%, 1W, Metal Oxide	4835 116 57121
R113	680 ohm, 5%, 1/2W, Metal Film	4835 116 57735
R114	12 ohm, 5%, 1/3W, Metal Film	4835 116 57164
R115	12 ohm, 5%, 1/3W, Metal Film	4835 116 57164
R127	10 ohm, 5%, 1/2W, Metal Film	4835 116 57097
R147	2.94k, 1%, 0.4W, Metal Film	4835 116 57649
R148	2.7k, 5%, 1/10W, Carbon Film	4835 111 27076
R149	470 ohm, 5%, 1/2W, Metal Film	4835 116 57723
R150	1.3k, 5%, 1/10W, Carbon Film	4835 111 27069
R152	220 ohm, 5%, 1/2W, Metal Film	4835 116 57705
R153	820 ohm, 5%, 1/2W, Metal Film	4835 116 57741
R154	6.8k, 5%, 1/10W, Carbon Film	4835 111 37272
R155	1.2k, 5%, 1/10W, Carbon Film	4835 111 27042
R156	470 ohm, 5%, 1/10W, Carbon Film	4835 111 37259
R157	330 ohm, 5%, 1/10W, Carbon Film	4835 111 37443
R158	150 ohm, 5%, 1/3W, Metal Film	4835 116 57151
R159	100 ohm, 5%, 1/3W, Metal Film	4835 116 87002
R160	18k, 5%, 1/2W, Metal Film	4835 110 57187
R161	5.1 ohm, 5%, 1W, Metal Oxide	4835 116 57121
R162	5.1 ohm, 5%, 1W, Metal Oxide	4835 116 57121
R163	560 ohm, 5%, 1/2W, Metal Film	4835 116 57731
R177	10 ohm, 5%, 1/2W, Metal Film	4835 116 57097
R179	0.33 ohm, 5%, 5W, Metal Oxide	4835 116 67152
R180	0.33 ohm, 5%, 5W, Metal Oxide	4835 116 67152
R182	0.33 ohm, 5%, 5W, Metal Oxide	4835 116 67152
R183	0.33 ohm, 5%, 5W, Metal Oxide	4835 116 67152
R198	2.94k, 1%, 0.4W, Metal Film	4835 116 57649
R199	470 ohm, 5%, 1/2W, Metal Film	4835 116 57723
R200	1.3k, 5%, 1/2W, Metal Film	4835 116 57694
R201	2.7k, 5%, 1/10W, Carbon Film	4835 111 27076
R202	220 ohm, 5%, 1/2W, Metal Film	4835 116 57705
R203	820 ohm, 5%, 1/2W, Metal Film	4835 116 57741
R204	6.8k, 5%, 1/2W, Metal Film	4835 116 57736
R205	1.2k, 5%, 1/10W, Carbon Film	4835 111 27042
R206	470 ohm, 5%, 1/10W, Carbon Film	4835 111 37259
R207	330 ohm, 5%, 1/10W, Carbon Film	4835 111 37443
R208	150 ohm, 5%, 1/3W, Metal Film	4835 116 57151
R209	100 ohm, 5%, 1/3W, Metal Film	4835 116 87002
R210	18k, 5%, 1/2W, Metal Film	4835 110 57187
R211	5.1 ohm, 5%, 1W, Metal Oxide	4835 116 57121
R212	5.1 ohm, 5%, 1W, Metal Oxide	4835 116 57121
R213	680 ohm, 5%, 1/2W, Metal Film	4835 116 57735
R214	12 ohm, 5%, 1/3W, Metal Film	4835 116 57164
R215	12 ohm, 5%, 1/3W, Metal Film	4835 116 57164
R227	10 ohm, 5%, 1/2W, Metal Film	4835 116 57097
R247	3K65 1%, 0.4W, Metal Film	4835 116 57462
R248	2.7k, 5%, 1/10W, Carbon Film	4835 111 27076
R249	470 ohm, 5%, 1/2W, Metal Film	4835 116 57723
R250	1.3k, 5%, 1/10W, Carbon Film	4835 111 27069
R252	220 ohm, 5%, 1/2W, Metal Film	4835 116 57705
R253	820 ohm, 5%, 1/2W, Metal Film	4835 116 57741
R254	6.8k, 5%, 1/2W, Metal Film	4835 116 57736
R255	1.2k, 5%, 1/10W, Carbon Film	4835 111 27042
R256	470 ohm, 5%, 1/10W, Carbon Film	4835 111 37259
R257	330 ohm, 5%, 1/10W, Carbon Film	4835 111 37443
R258	150 ohm, 5%, 1/3W, Metal Film	4835 116 57151
R259	100 ohm, 5%, 1/3W, Metal Film	4835 116 87002
R260	18k, 5%, 1/2W, Metal Film	4835 110 57187
R261	5.1 ohm, 5%, 1W, Metal Oxide	4835 116 57121
R262	5.1 ohm, 5%, 1W, Metal Oxide	4835 116 57121
R263	560 ohm, 5%, 1/2W, Metal Film	4835 116 57731
R277	10 ohm, 5%, 1/2W, Metal Film	4835 116 57097
R279	0.33 ohm, 5%, 5W, Metal Oxide	4835 116 67152
R280	0.33 ohm, 5%, 5W, Metal Oxide	4835 116 67152
R282	0.33 ohm, 5%, 5W, Metal Oxide	4835 116 67152
R283	0.33 ohm, 5%, 5W, Metal Oxide	4835 116 67152
R298	2.94k, 1%, 0.4W, Metal Film	4835 116 57649
R299	470 ohm, 5%, 1/2W, Metal Film	4835 116 57723
R300	1.3k, 5%, 1/2W, Metal Film	4835 116 57694
R301	2.7k, 5%, 1/10W, Carbon Film	4835 111 27076
R302	220 ohm, 5%, 1/2W, Metal Film	4835 116 57705
R303	820 ohm, 5%, 1/2W, Metal Film	4835 116 57741
R304	6.8k, 5%, 1/2W, Metal Film	4835 116 57736
R305	1.2k, 5%, 1/10W, Carbon Film	4835 111 27042
R306	470 ohm, 5%, 1/10W, Carbon Film	4835 111 37259
R307	330 ohm, 5%, 1/10W, Carbon Film	4835 111 37443
R308	150 ohm, 5%, 1/3W, Metal Film	4835 116 57151
R309	100 ohm, 5%, 1/3W, Metal Film	4835 116 87002
R310	18k, 5%, 1/2W, Metal Film	4835 110 57187
R311	5.1 ohm, 5%, 1W, Metal Oxide	4835 116 57121
R312	5.1 ohm, 5%, 1W, Metal Oxide	4835 116 57121
R313	680 ohm, 5%, 1/2W, Metal Film	4835 116 57735
R314	12 ohm, 5%, 1/3W, Metal Film	4835 116 57164
R315	12 ohm, 5%, 1/3W, Metal Film	4835 116 57164
R327	10 ohm, 5%, 1/2W, Metal Film	4835 116 57097
R347	2.43k, 1%, 0.4W, Metal Film	4835 116 57028
R348	2.7k, 5%, 1/10W, Carbon Film	4835 111 27076
R349	470 ohm, 5%, 1/2W, Metal Film	4835 116 57723
R350	1.3k, 5%, 1/10W, Carbon Film	4835 111 27069
R352	220 ohm, 5%, 1/2W, Metal Film	4835 116 57705
R353	820 ohm, 5%, 1/2W, Metal Film	4835 116 57741
R354	6.8k, 5%, 1/2W, Metal Film	4835 116 57736
R355	1.2k, 5%, 1/10W, Carbon Film	4835 111 27042
R356	470 ohm, 5%, 1/10W, Carbon Film	4835 111 37259
R357	330 ohm, 5%, 1/10W, Carbon Film	4835 111 37443
R358	150 ohm, 5%, 1/3W, Metal Film	4835 116 57151
R359	100 ohm, 5%, 1/3W, Metal Film	4835 116 87002
R360	18k, 5%, 1/2W, Metal Film	4835 110 57187
R361	5.1 ohm, 5%, 1W, Metal Oxide	4835 116 57121
R362	5.1 ohm, 5%, 1W, Metal Oxide	4835 116 57121
R363	560 ohm, 5%, 1/2W, Metal Film	4835 116 57731
R377	10 ohm, 5%, 1/2W, Metal Film	4835 116 57097
R379	0.33 ohm, 5%, 5W, Metal Oxide	4835 116 67152
R380	0.33 ohm, 5%, 5W, Metal Oxide	4835 116 67152
R382	0.33 ohm, 5%, 5W, Metal Oxide	4835 116 67152
R383	0.33 ohm, 5%, 5W, Metal Oxide	4835 116 67152
D5	Diode, BAS216	4835 130 37905
D6	Diode, BAS216	4835 130 37905
D7	Diode, BAS216	4835 130 37905
D10	Diode, BAS216	4835 130 37905
D11	Diode, BAS216	4835 130 37905
D12	Diode, BAS216	4835 130 37905
D13	Diode, BAS216	4835 130 37905
D100	Diode, 1N4150	4835 130 37934
D111	Diode, BAS216	4835 130 37905
D112	Diode, BAS216	4835 130 37905
D113	Diode, BAS216	4835 130 37905
D114	Diode, BAS216	4835 130 37905
D150	Diode, 1N4150	4835 130 37934
D200	Diode, 1N4150	4835 130 37934
D211	Diode, BAS216	4835 130 37905
D212	Diode, BAS216	4835 130 37905
D213	Diode, BAS216	4835 130 37905
D214	Diode, BAS216	4835 130 37905
D250	Diode, 1N4150	4835 130 37934
D300	Diode, 1N4150	4835 130 37934
D311	Diode, BAS216	4835 130 37905
D312	Diode, BAS216	4835 130 37905
D313	Diode, BAS216	4835 130 37905
D314	Diode, BAS216	4835 130 37905
D350	Diode, 1N4150	4835 130 37934
VR1	Diode, BB909A	4835 130 37949
IC6	IC MC7805CT 13.59MHz Voltage Regulator	4835 209 87486
IC10	IC NE5532N PLL Filter	4835 209 17038
IC11	IC ST24W08B6 EEPROM	4835 209 88556
IC13	IC UPD65654GF-260 Convergence Spline Processor	4835 209 88475
IC100	IC NE5532N Green Output Amplifier	4835 209 17038
IC165	IC TDA1313/N1 Green DAC	4835 209 88476
IC200	IC NE5532N Blue Output Amplifier	4835 209 17038
IC265	IC TDA1313/N1 Blue DAC	4835 209 88476
IC300	IC NE5532N Red Output Amplifier	4835 209 17038
IC365	IC TDA1313/N1 Red DAC	4835 209 88476
Q5	Transistor, +15 Volt Regulator, BD139.	4835 130 47642
Q6	Transistor, Intensity Buffer,	4835 130 47086
Q7	Transistor, Fast Blanking Buffer, SMBT1159-2T	4835 130 47086
Q8	Transistor, Horizontal Pulse Buffer, SMBT1159	4835 130 47086
Q9	Transistor, Vertical Pulse Buffer, SMBT1159-2	4835 130 47086
Q10	Transistor, 13.59MHz Voltage Controlled Oscil.	4835 209 47125
Q11	Transistor, +5.5 Volt Regulator, SPS735	4835 130 47051
Q15	Transistor, -15 Volt Regulator, BD140.	4835 130 47641
Q100	Transistor, NPN, BC547B	4835 130 47055
Q101	Transistor, NPN, BC547B	4835 130 47055
Q102	Transistor, NPN, BC547B	4835 130 47055
Q103	Transistor, NPN, BC547B	4835 130 47055
Q104	Transistor, PNP, BD140	4835 130 47641
Q105	Transistor, NPN, BD139	4835 130 47642
Q106	Transistor, NPN, SJE1331-5	4835 130 47107
Q107	Transistor, PNP, SJE1763	4835 130 47084
Q150	Transistor, NPN, BC547B	4835 130 47055
Q151	Transistor, NPN, BC547B	4835 130 47055
Q152	Transistor, NPN, BC547B	4835 130 47055
Q153	Transistor, NPN, BC547B	4835 130 47055
Q154	Transistor, PNP, BD140	4835 130 47641
Q155	Transistor, NPN, BD139	4835 130 47642
Q156	Transistor, NPN, SJE1331-5	4835 130 47107
Q157	Transistor, PNP, SJE1763	4835 130 47084
Q200	Transistor, NPN, BC547B	4835 130 47055
Q201	Transistor, NPN, BC547B	4835 130 47055
Q202	Transistor, NPN, BC547B	4835 130 47055
Q203	Transistor, NPN, BC547B	4835 130 47055
Q204	Transistor, PNP, BD140	4835 130 47641
Q205	Transistor, NPN, BD139	4835 130 47642
Q206	Transistor, NPN, SJE1331-5	4835 130 47107
Q207	Transistor, PNP, SJE1763	4835 130 47084

S = Safety Part   Be sure to use exact replacement part.

Q250	Transistor, NPN, BC547B.	4835 130 47055
Q251	Transistor, NPN, BC547B.	4835 130 47055
Q252	Transistor, NPN, BC547B.	4835 130 47055
Q253	Transistor, NPN, BC547B.	4835 130 47055
Q254	Transistor, PNP, BD140	4835 130 47641
Q255	Transistor, NPN, BD139	4835 130 47642
Q256	Transistor, NPN, SJE1331-5	4835 130 47107
Q257	Transistor, PNP, SJE1763	4835 130 47084
Q300	Transistor, NPN, BC547B.	4835 130 47055
Q301	Transistor, NPN, BC547B.	4835 130 47055
Q302	Transistor, NPN, BC547B.	4835 130 47055
Q303	Transistor, NPN, BC547B.	4835 130 47055
Q304	Transistor, PNP, BD140	4835 130 47641
Q305	Transistor, NPN, BD139	4835 130 47642
Q306	Transistor, NPN, SJE1331-5	4835 130 47107
Q307	Transistor, PNP, SJE1763	4835 130 47084
Q350	Transistor, NPN, BC547B.	4835 130 47055
Q351	Transistor, NPN, BC547B.	4835 130 47055
Q352	Transistor, NPN, BC547B.	4835 130 47055
Q353	Transistor, NPN, BC547B.	4835 130 47055
Q354	Transistor, PNP, BD140	4835 130 47641
Q355	Transistor, NPN, BD139	4835 130 47642
Q356	Transistor, NPN, SJE1331-5	4835 130 47107
Q357	Transistor, PNP, SJE1763	4835 130 47084
Z2	Zener Diode, 12V, BZX79.	4835 130 37001
Z3	Zener Diode, 10V, BZX79.	4835 130 37014
Z5	Zener Diode, 5.1V, BZX79	4835 130 37119
Z6	Zener Diode, 5.1V, MMSZ5231B	4835 220 17061
Z7	Zener Diode, 5.1V, MMSZ5231B	4835 220 17061
Z8	Zener Diode, 5.1V, MMSZ5231B	4835 220 17061
Z9	Zener Diode, 5.1V, MMSZ5231B	4835 220 17061
Z10	Zener Diode, 5.1V, BZX7.	4835 130 37941
Z15	Zener Diode, 5.1V, BZX79	4835 130 37119
Z30	Zener Diode, 5.1V, BZX79	4835 130 37119
Z200	Zener Diode, 30V, BZX7	4835 130 37942
Z201	Zener Diode, 30V, BZX7	4835 130 37942
Z300	Zener Diode, 30V, BZX7	4835 130 37942
Z301	Zener Diode, 30V, BZX7	4835 130 37942
L3	5uH., Adjustable Coil.	4835 157 58097
L4	10uH., Suppression Coil.	4835 152 27026
L5	22uH., 10%, Choke Coil	4835 152 27049
L6	22uH., 10%, Choke Coil	4835 152 27049
L11	5.6uH., 5%, Peaking Coil	2422 535 94291
L12	5.6uH., 5%, Peaking Coil	2422 535 94291
L13	5.6uH., 5%, Peaking Coil	2422 535 94291
L16	5.6uH., 5%, Peaking Coil	2422 535 94291
L19	5.6uH., 5%, Peaking Coil	2422 535 94291
L20	5.6uH., 10%, Peaking Coil LAL03.	4835 157 57103
L22	5.6uH., 10%, Peaking Coil LAL03.	4835 157 57103
L24	5.6uH., 10%, Peaking Coil LAL03.	4835 157 57103
L25	6.8uH., 10% Peaking Coil LAL03	4835 157 57988
L26	6.8uH., 10% Peaking Coil LAL03	4835 157 57988
L27	6.8uH., 10% Peaking Coil LAL03	4835 157 57988
L28	6.8uH., 10% Peaking Coil LAL03	4835 157 57988
L29	6.8uH., 10% Peaking Coil LAL03	4835 157 57988
BRXXX	Zero ohm, Carbon Film.	4835 111 27056
BRSXXX	Zero ohm, Carbon Film.	4835 111 27056
F1	4 Amp Fuse	4835 253 37027
F2	4 Amp Fuse	4835 253 37027
F3	1 Amp Fuse	4835 253 37026
HS6	Small Signal Shield.	3135 011 02251
HS100	Heatsink for Digital Convergence	3135 011 02000
HS100	Spring Clip for Q306 and Q307 (2 used)	3135 011 03270
HS150	Heatsink for Digital Convergence	3135 011 02000
HS150	Spring Clip for Q356 and Q357 (2 used)	3135 011 03270
HS200	Heatsink for Digital Convergence	3135 011 02000
HS200	Spring Clip for Q206 and Q207 (2 used)	3135 011 03270
HS250	Heatsink for Digital Convergence	3135 011 02000
HS250	Spring Clip for Q256 and Q257 (2 used)	3135 011 03270
HS300	Heatsink for Digital Convergence	3135 011 02000
HS300	Spring Clip for Q156 and Q157 (2 used)	3135 011 03270
HS350	Heatsink for Digital Convergence	3135 011 02000
HS350	Spring Clip for Q106 and Q107 (2 used)	3135 011 03270
J307	8 Pin Connector.	2422 025 15025
J468	9 Pin Connector.	2422 025 15205
J483	5 Pin Connector.	3135 010 02931
J484	5 Pin Connector.	3135 010 02931
J485	5 Pin Connector.	3135 010 02931
J654A	10 Pin Board Connector	2422 025 15027
P701	10 Pin Connector	4835 265 97463
P801	10 Pin Connector	4835 265 97463
P901	10 Pin Connector	4835 265 97463
SA701	Surge Protector.	4835 116 97013
SA801	Surge Protector.	4835 116 97013
SA901	Surge Protector.	4835 116 97013
SHB200	Shield (for Digital Convergence)	3135 011 01890
SHD200	Heatsink for Digital Convergence	3135 011 03291
TP4	2 Pin Board Connector.	2422 025 02496
Y1	Saw Filter, 390MHz	4835 153 97054

RED CRT APNEL

RED CRT APNEL

	C701	0.01uF., 400V, Electrolytic.	0025 972 51039
	C702	0.01uF., 400V, Electrolytic.	0025 972 51039
S	C705	1000pF., 20%, 2kV, Ceramic Disc.	4822 122 32064
	C717	10uF., 350V, Electrolytic.	2020 012 93272
	C720	10uF., 20%, 50V, Electrolytic.	3198 025 51090
	C721	0.1uF., 63V, Metalized Polyester	4835 121 47602
	C750	100pF., 5%, 50V, Ceramic Disc.	3198 019 01010
	C751	1200pF.,5%, 100V, Polyester.	4835 121 47558
	C752	1000pF., 20%, 1kV, Ceramic Disc.	4822 122 32064
S	R701	27 ohm, 5%, 1/2W, Metal Oxide.	4835 116 57112
	R703	100 ohm, 5%, 1/3W, Carbon Film	4822 050 21001
S	R710	1.5k, 10%, 1/2W, Carbon Composition.	4835 110 47001
S	R716	110 ohm, 5%, 1/2W, Carbon Composition.	4835 110 47096
S	R718	22k, 20%, 1/2W, Carbon Composition	4835 110 47167
S	R719	5.6 ohm, 5%, 1/2W, Metal Film	4835 116 57595
S	R720	5.6 ohm, 5%, 1/2W, Metal Film	4835 116 57595
S	R730	3.3k, 5%, 5W, Metal Oxide.	4835 116 67302
S	R731	3.3k, 5%, 5W, Metal Oxide.	4835 116 67302
	R735	100 ohm, 5%, 1/3W, Carbon Film	4822 050 21001
	R738	100k, 5%, 1/3W, Carbon Film.	4822 050 21004
	R742	750 ohm, 1%, 1/4W, Carbon Film	4835 110 57352
	R743	220 ohm, 1%, 0.6W, Metal Film.	4835 116 57765
	R745	75 ohm, 2%, 1/2W, Carbon Film.	4835 110 47202
	R751	15 ohm, 1%, 0.6W, Metal Film	4835 116 57766
	R752	22k, 5%, 1/4W, Carbon Composition.	4835 110 57317
	R753	43 ohm, 5%, 1/2W, Carbon Film.	4835 110 47195
	R755	47 ohm, 5%, 1/8W, Carbon Film.	4822 050 14709
	R756	68 ohm, 5%, 1/3W, Carbon Film.	4835 110 57008
	D705	Diode, MUR140.	4835 130 37102
	Q701	Transistor, Upper Cascode, 2SC3790E.	4835 130 47886
	Q702	Transistor, Lower Cascode, SPS7350	4835 130 47051
	Q703	Transistor, Bias, SPS9	4835 130 47091
	L701	100uH., 10%, Peaking Coil.	4835 157 67077
	L702	15uH., Coil LAL04.	4835 157 67087
	L703	47uH., Coil LAL02.	4835 157 67088
	L704	47uH., Coil LAL02.	4835 157 67088
	L705	22uH., 5%, Peaking Coil.	4835 157 67089
	HS701	Heatsink for Q701.	3135 011 01230
	J540A	2 Pin Connector.	3135 010 02941
	J567	2 Pin Connector.	3135 010 02941
	J580	Contact Pin.	3135 010 00470
	J654	10 Pin Board Connector	2422 025 15027

GREEN CRT PANEL

GREEN CRT PANEL

	C801	0.01uF., 400V, Electrolytic.	0025 972 51039
S	C805	1000pF., 20%, 2kV, Ceramic Disc.	4822 122 32064
	C807	0.01uF., 400V, Electrolytic.	0025 972 51039
	C817	10uF., 350V, Electrolytic.	2020 012 93272
	C820	10uF., 20%, 50V, Electrolytic.	3198 025 51090
	C821	0.1uF., 63V, Metalized Polyester	4835 121 47602
	C850	100pF., 5%, 50V, Ceramic Disc.	3198 019 01010
	C851	1200pF.,5%, 100V, Polyester.	4835 121 47558
	C852	1000pF., 20%, 1kV, Ceramic Disc.	4822 122 32064
S	R801	27 ohm, 5%, 1/2W, Metal Oxide.	4835 116 57112
	R803	100 ohm, 5%, 1/3W, Carbon Film	4822 050 21001
S	R810	1.5k, 5%, 1/2W, Carbon Composition	4835 110 47194
S	R816	110 ohm, 5%, 1/2W, Carbon Composition.	4835 110 47096
S	R818	22k, 20%, 1/2W, Carbon Composition	4835 110 47167
S	R819	5.6 ohm, 5%, 1/2W, Metal Film	4835 116 57595
S	R820	5.6 ohm, 5%, 1/2W, Metal Film	4835 116 57595
	R825	220k, 5%, 1/2W, Metal Film	4835 116 57018
	R826	100k, 5%, 1/2W, Metal Film	4835 116 57687
S	R830	3.3k, 5%, 5W, Metal Oxide.	4835 116 67302
S	R831	3.3k, 5%, 5W, Metal Oxide.	4835 116 67302
	R835	100 ohm, 5%, 1/3W, Carbon Film	4822 050 21001
	R838	100k, 5%, 1/3W, Carbon Film.	4822 050 21004
	R842	750 ohm, 1%, 0.6W, Metal Film.	4835 116 57767
	R843	220 ohm, 1%, 0.6W, Metal Film.	4835 116 57765
	R845	75 ohm, 2%, 1/2W, Carbon Film.	4835 110 47202
	R851	15 ohm, 1%, 0.6W, Metal Film	4835 116 57766
	R852	22k, 5%, 1/4W, Carbon Composition.	4835 110 57317
	R853	43 ohm, 5%, 1/2W, Carbon Film.	4835 110 47195
	R855	47 ohm, 5%, 1/3W, Carbon Film.	4835 110 57019
	R856	68 ohm, 5%, 1/3W, Carbon Film.	4835 110 57008
	R857	10k, 5%, 1/2W, Metal Film.	4835 116 57686
	D805	Diode, MUR140.	4835 130 37102
	Q801	Transistor, Upper Cascode, 2SC3790E.	4835 130 47886
	Q802	Transistor, Lower Cascode, SPS7350	4835 130 47051
	Q803	Transistor, Bias, SPS9	4835 130 47091
	L801	100uH., 10%, Peaking Coil.	4835 157 67077
	L802	15uH., Coil LAL04.	4835 157 67087
	L803	47uH., Coil LAL02.	4835 157 67088
	L804	47uH., Coil LAL02.	4835 157 67088
	L805	22uH., 10%, Peaking Coil	4835 157 67069
	HS801	Heatsink for Q801.	3135 011 01230
	J401	4 Pin Board Connector.	2422 025 15021
	J540	2 Pin Connector.	3135 010 02941
	J568	2 Pin Connector.	3135 010 02941
	J569	2 Pin Connector.	3135 010 02941
	J581	Contact Pin.	3135 010 00470
	J608	10 Pin Board Connector	2422 025 15196

S = Safety Part   Be sure to use exact replacement part.

	J654A	10 Pin Board Connector	2422 025 15027
	J658A	10 Pin Board Connector	2422 025 14677

BLUE CRT PANEL

		BLUE CRT PANEL	
	C901	0.01uF., 400V, Electrolytic.	0025 972 51039
	C902	0.01uF., 400V, Electrolytic.	0025 972 51039
S	C905	1000pF., 20%, 2kV, Ceramic Disc.	4822 122 32064
	C917	10uF., 350V, Electrolytic.	2020 012 93272
	C920	10uF., 20%, 50V, Electrolytic.	4835 124 47202
	C921	0.1uF., 63V, Metalized Polyester	4835 121 47602
	C950	100pF., 5%, 50V, Ceramic Disc.	3198 019 01010
	C951	1200pF.,5%, 100V, Polyester.	4835 121 47558
	C952	1000pF., 20%, 1kV, Ceramic Disc.	4822 122 32064
S	R901	27 ohm, 5%, 1/2W, Metal Oxide.	4835 116 57112
	R903	100 ohm, 5%, 1/3W, Carbon Film	4822 050 21001
S	R910	1.5k, 10%, 1/2W, Carbon Composition.	4835 110 47001
S	R916	110 ohm, 5%, 1/2W, Carbon Composition.	4835 110 47096
S	R918	22k, 20%, 1/2W, Carbon Composition	4835 110 47167
S	R919	5.6 ohm, 5%, 1/2W, Metal Film.	4835 116 57595
S	R920	5.6 ohm, 5%, 1/2W, Metal Film.	4835 116 57595
S	R930	3.3k, 5%, 5W, Metal Oxide.	4835 116 67302
S	R931	3.3k, 5%, 5W, Metal Oxide.	4835 116 67302
	R935	100ohm, 5%, 1/3W, Carbon Film.	4822 050 21001
	R938	100k, 5%, 1/3W, Carbon Film.	4822 050 21004
	R942	750ohm, 1%, 1/4W, Carbon Film.	4835 110 57352
	R943	220 ohm, 1%, 0.6W, Metal Film.	4835 116 57765
	R945	75 ohm, 2%, 1/2W, Carbon Film.	4835 110 47202
	R951	15 ohm, 1%, 0.6W, Metal Film	4835 116 57766
	R952	22k, 5%, 1/4W, Carbon Composition.	4835 110 57317
	R953	43 ohm, 5%, 1/2W, Carbon Film.	4835 110 47195
	R955	47 ohm, 5%, 1/8W, Carbon Film.	4822 050 14709
	R956	68 ohm, 5%, 1/3W, Carbon Film.	4835 110 57008
	D905	Diode, MUR140.	4835 130 37102
	Q901	Transistor, Upper Cascode, 2SC3790E.	4835 130 47886
	Q902	Transistor, Lower Cascode, SPS7350	4835 130 47051
	Q903	Transistor, Bias, SPS9	4835 130 47091
	L901	100uH., 10%, Peaking Coil.	4835 157 67077
	L902	15uH., Coil LAL04.	4835 157 67087
	L903	47uH., Coil LAL02.	4835 157 67088
	L904	47uH., Coil LAL02.	4835 157 67088
	L905	22uH., 10%, Peaking Coil	4835 157 67069
	HS901	Heatsink for Q901.	3135 011 01230
	J569A	2 Pin Connector.	3135 010 02941
	J570	2 Pin Connector.	3135 010 02941
	J582	Contact Pin.	3135 010 00470
	J658	10 Pin Board Connector	2422 025 14677

MODEL 008P5431C101

		MODEL 008P5431C101	
S	20	AC Cord, Filtered.	4835 321 17128
	27	Back Cover (Lower)	4835 432 97707
	26	Back Cover (Upper)	4835 432 97693
		Baffle Mount Receptacle (x6)	4835 265 97154
		Battery f/Remote AA ZC 1.5V.	4835 138 17047
		Caster (x4).	4835 528 77071
	17	Chassis Frame.	4835 432 17943
	3	Extr., Screen Bottom	3135 014 02950
	2	Extr., Screen Edge, Side (x2).	3135 014 03070
	14	Extr., Screen Edge, Top.	3135 014 03060
	4	Foot Base Rail (x2).	3135 014 03131
	16	Frame f/Digital Convergence.	4835 432 17846
	11	Frame, Screen 54" (x2)	3135 014 06350
	9	Hole Insert (x17).	3135 014 02741
	18	Jack Panel Frame	3135 014 06650
	13	Lens, Fresnel.	3135 013 00950
	10	Lens, Lenticular	3135 013 00920
	22	Light Barrier.	4835 432 17945
	15	Mirror Board Mtng Brkt. (x2)	3135 011 02401
	25	Mirror Mounting.	3135 013 01410
	24	Mirror Trapz 2nd Surface	3135 013 01140
		Owners Manual.	3135 015 07370
		Quick Use Guide.	3135 015 07360
		Rear Barrier	4835 432 97694
	19	Rear Jack Panel Overlay.	4835 459 17556
		Remote Transmit. UR714SB	4835 219 17699
	1	Retainer Treelock (x15).	3135 014 02620
	8	Speaker Full 4x6" 8 Ohm (x2)	4835 240 47011
	7	Speaker Grille	4835 459 47113

SMALL SIGNAL PANEL (1 TUNER)

		SMALL SIGNAL PANEL (1 TUNER)	
	C1	100uF., 16V, Electrolytic.	3198 025 21010
	C2	15pF., 5%, 50V, Ceramic.	3198 016 01590
	C4	470uF., 50V, Electrolytic.	3198 025 54770
	C5	100uF., 16V, Electrolytic.	3198 025 21010
	C7	0.01uF., 10%, 50V, Ceramic	3198 017 01030
	C8	220uF., 16V, Electrolytic.	3198 025 22210
	C9	10uF., 20%, 50V, Electrolytic.	3198 025 51090
	C10	10uF., 20%, 50V, Electrolytic.	3198 025 51090
	C13	1uF., 20%, 50V, Electrolytic	3198 025 51080
	C14	1uF., 20%, 50V, Electrolytic	3198 025 51080
	C19	10uF., 20%, 50V, Electrolytic.	3198 025 51090
	C25	10uF., 20%, 50V, Electrolytic.	3198 025 51090
	C30	10uF., 20%, 16V, Electrolytic.	2020 012 92805
	C37	100uF., 16V, Electrolytic.	3198 025 21010
	C39	220uF., 16V, Electrolytic.	3198 025 22210
	C45	0.01uF., 10%, 50V, Ceramic	4835 122 87042
	C46	1000uF., 16V, Electrolytic	4835 124 47571
	C50	1000pF., 10%, 50V, Ceramic	3198 017 01020
	C51	1000pF., 10%, 50V, Ceramic	3198 017 01020
	C100	5600pF., 10%, 50V, Ceramic	4835 122 87043
	C101	0.15uF., 5%, 50V, Polyester.	2020 308 90118
	C102	0.15uF., 5%, 50V, Polyester.	2020 308 90118
	C103	0.15uF., 5%, 50V, Polyester.	2020 308 90118
	C104	2.2uF., 25V, Electrolytic.	4835 124 97179
	C105	8200pF., 10%, 50V, Ceramic	4835 122 87527
	C106	4.7uF., 20%, 16V, Electrolytic	2020 004 90258
	C107	2.2uF., 25V, Electrolytic.	4835 124 97179
	C108	2.2uF., 25V, Electrolytic.	4835 124 97179
	C109	10uF., 20%, 50V, Electrolytic.	3198 025 51090
	C110	10uF., 20%, 50V, Electrolytic.	3198 025 51090
	C111	1uF., 35V, Electrolytic.	4835 124 97175
	C112	1uF., 35V, Electrolytic.	4835 124 97175
	C113	0.047uF., 10%, 50V, Ceramic.	3198 017 04730
	C114	0.1uF., 25V, Ceramic	3198 017 21040
	C115	4.7uF., 20%, 16V, Electrolytic	2020 004 90258
	C116	10uF., 20%, 50V, Electrolytic.	3198 025 51090
	C117	10uF., 20%, 50V, Electrolytic.	3198 025 51090
	C118	0.47uF., 100V, Metalized Polyester	4835 121 47364
	C119	0.22uF., 100V, Metalized Polyester	4835 121 47038
	C120	4.7uF., 20%, 16V, Electrolytic	2020 004 90258
	C121	0.22uF., 100V, Metalized Polyester	4835 121 47038
	C122	4.7uF., 20%, 16V, Electrolytic	2020 004 90258
	C123	4.7uF., 20%, 16V,Electrolytic.	2020 004 90258
	C124	2.2uF., 25V, Electrolytic.	4835 124 97179
	C125	2.2uF., 25V, Electrolytic.	4835 124 97179
	C126	0.015uF., 10%, 50V, Ceramic.	4835 122 87063
	C127	0.015uF., 10%, 50V, Ceramic.	4835 122 87063
	C128	2.2uF., 25V,Electrolytic	4835 124 97179
	C129	8200pF., 10%, 50V,Ceramic.	4835 122 87527
	C130	0.15uF., 5%, 50V, Polyester.	2020 308 90118
	C131	5600pF., 10%, 50V, Ceramic	4835 122 87043
	C132	0.15uF., 5%, 50V, Polyester.	2020 308 90118
	C133	0.15uF., 5%, 50V, Polyester.	2020 308 90118
	C135	1000uF., 35V, Electrolytic	4835 124 47498
	C136	1000uF., 35V, Electrolytic	4835 124 47498
	C137	10uF., 20%, 50V, Electrolytic.	3198 025 51090
	C138	10uF., 20%, 50V, Electrolytic.	3198 025 51090
	C140	0.1uF., 25V,Ceramic.	3198 017 21040
	C142	10uF., 20%, 50V, Electrolytic.	3198 025 51090
	C154	0.1uF., 25V, Ceramic	3198 017 21040
	C155	100uF., 16V, Electrolytic.	3198 025 21010
	C156	10uF., 20%, 50V, Electrolytic.	3198 025 51090
	C157	47uF., 20%, 25V,Electrolytic	3198 025 34790
	C158	10uF., 20%, 50V, Electrolytic.	3198 025 51090
	C160	47uF., 20%, 25V, Electrolytic.	3198 025 34790
	C161	100pF., 5%, 50V, Ceramic	3198 016 01010
	C162	100uF., 50V, Electrolytic.	3198 025 51010
	C164	100pF., 5%, 50V, Ceramic	3198 016 01010
	C165	47uF., 20%, 25V, Electrolytic.	3198 025 34790
	C166	0.1uF., 10%, 50V, Ceramic.	4835 122 87061
	C167	10uF., 50V, Electrolytic	4835 124 47525
	C168	0.1uF., 10%, 50V, Ceramic.	4835 122 87061
	C169	1000uF., 25V, Electrolytic	4835 124 47583
	C170	1uF., 20%, 50V, Electrolytic	3198 025 51080
	C171	0.1uF., 10%, 50V, Ceramic.	4835 122 87061
	C172	0.1uF., 10%, 50V,Ceramic	4835 122 87061
	C173	100uF., 16V, Electrolytic.	3198 025 21010
	C174	10uF., 20%, 50V, Electrolytic.	3198 025 51090
	C175	1000uF., 25V, Electrolytic	4835 124 47583
	C176	0.1uF., 10%, 50V, Ceramic.	4835 122 87061
	C177	0.01uF., 10%, 50V, Ceramic	3198 017 01030
	C178	47uF., 20%, 25V, Electrolytic.	3198 025 34790
	C179	0.1uF., 10%, 50V, Ceramic.	4835 122 87061
	C180	0.01uF., 10%, 50V, Ceramic	3198 017 01030
	C181	0.1uF., 25V, Ceramic	3198 017 21040
	C186	1uF., 20%, 50V, Electrolytic	3198 025 51080
	C190	47uF., 20%, 25V, Electrolytic.	3198 025 34790
	C191	10uF., 20%, 50V, Electrolytic.	3198 025 51090
	C195	10uF., 20%, 50V, Electrolytic.	3198 025 51090
	C198	47uF., 20%, 50V, Electrolytic.	3198 025 54790
	C199	47uF., 20%, 50V, Electrolytic.	3198 025 54790
	C200	0.1uF., 10%, 50V, Ceramic.	4835 122 87061
	C201	4.7uF., 20%, 16V, Electrolytic	2020 004 90258
	C202	1000pF., 10%, 50V, Ceramic	3198 017 01020
	C203	0.01uF., 10%, 50V, Ceramic	3198 017 01030
	C204	100uF., 25V, Electrolytic.	3198 025 31010
	C205	0.1uF., 10%, 50V, Ceramic.	4835 122 87061
	C206	0.01uF., 10%, 50V, Ceramic	4835 122 87042
	C207	2.2uF., 25V, Electrolytic.	4835 124 97179
	C208	330pF., 10%, 50V, Ceramic.	4835 122 47047
	C209	0.01uF., 10%, 50V, Ceramic	4835 122 87042
	C210	16pF., 5%, 50V, Ceramic.	4835 122 87449

S = Safety Part   Be sure to use exact replacement part.

C211	0.47uF., 35V, Electrolytic	4835 124 97182
C212	0.068uF., 10%, 50V, Ceramic.	4835 122 87448
C213	0.33uF., 35V, Electrolytic	4835 124 97037
C216	0.01uF., 10%, 50V, Ceramic	4835 122 87042
C217	470pF., 10%, 50V, Ceramic.	2020 552 93057
C218	1uF., 35V, Electrolytic.	4835 124 97175
C220	0.1uF., 10%, 50V, Ceramic.	4835 122 87061
C221	10uF., 20%, 50V, Electrolytic.	3198 025 51090
C222	0.1uF., 10%, 50V, Ceramic.	4835 122 87061
C223	0.1uF., 10%, 50V, Ceramic.	4835 122 87061
C225	0.047uF., 10%, 50V, Ceramic.	4835 122 87071
C227	0.01uF., 10%, 50V, Ceramic	3198 017 01030
C229	0.1uF., 25V, Ceramic	3198 017 21040
C230	220pF., 5%, 50V, Ceramic	3198 016 02210
C300	0.1uF., 25V, Ceramic	3198 017 21040
C301	33pF., 5%, 50V, Ceramic.	3198 016 03390
C302	33pF., 5%, 50V, Ceramic.	3198 016 03390
C303	6.8uF., 10V, Electrolytic.	4835 124 97183
C304	1000pF., 10%, 50V, Ceramic	3198 017 01020
C305	1000pF., 10%, 50V, Ceramic	3198 017 01020
C306	1000pF., 10%, 50V, Ceramic	3198 017 01020
C307	1000pF., 10%, 50V, Ceramic	3198 017 01020
C308	1000pF., 10%, 50V, Ceramic	3198 017 01020
C309	1000pF., 10%, 50V, Ceramic	3198 017 01020
C310	1000pF., 10%, 50V, Ceramic	3198 017 01020
C311	6.8uF., 10V, Electrolytic.	4835 124 97183
C312	100pF., 5%, 50V, Ceramic	3198 016 01010
C313	1000pF., 10%, 50V, Ceramic	3198 017 01020
C314	1000pF., 10%, 50V, Ceramic	3198 017 01020
C315	1000pF., 10%, 50V, Ceramic	3198 017 01020
C316	1000pF., 10%, 50V, Ceramic	3198 017 01020
C317	1000pF., 10%, 50V, Ceramic	3198 017 01020
C318	1000pF., 10%, 50V, Ceramic	3198 017 01020
C319	1000pF., 10%, 50V, Ceramic	3198 017 01020
C321	1000pF., 10%, 50V, Ceramic	4835 122 87041
C322	1uF., 35V, Electrolytic.	4835 124 97175
C323	1uF., 35V, Electrolytic.	4835 124 97175
C341	Trimmer Capacitor, 3pF.-40pF., 250V.	2222 808 11409
C342	0.47uF., 35V, Electrolytic	4835 124 97182
C355	100pF., 5%, 50V, Ceramic	3198 016 01010
C356	100pF., 5%, 50V, Ceramic	3198 016 01010
C359	1000pF., 10%, 50V, Ceramic	3198 017 01020
C360	1000pF., 10%, 50V, Ceramic	3198 017 01020
C362	100pF., 5%, 50V, Ceramic	3198 016 01010
C363	100pF., 5%, 50V, Ceramic	3198 016 01010
C375	1000pF., 10%, 50V, Ceramic	3198 017 01020
C376	1000pF., 10%, 50V, Ceramic	3198 017 01020
C377	1000pF., 10%, 50V, Ceramic	3198 017 01020
C378	1000pF., 10%, 50V, Ceramic	3198 017 01020
C379	1000pF., 10%, 50V, Ceramic	3198 017 01020
C382	1000pF., 10%, 50V, Ceramic	3198 017 01020
C383	27pF., 5%, 50V, Ceramic.	3198 016 02790
C386	1000pF., 10%, 50V, Ceramic	3198 017 01020
C387	2.2uF., 25V, Electrolytic.	4835 124 97179
C390	100pF., 5%, 50V, Ceramic	3198 016 01010
C391	1000pF., 10%, 50V, Ceramic	3198 017 01020
C395	0.1uF., 25V, Ceramic	3198 017 21040
C396	0.1uF., 25V, Ceramic	3198 017 21040
C400	4.7uF., 20%, 16V, Electrolytic	2020 004 90258
C401	22uF., 20%, 25V, Electrolytic.	4835 124 47707
C402	0.1uF., 10%, 50V, Ceramic.	4835 122 87061
C405	0.01uF., 10%, 50V, Ceramic	4835 122 87042
C406	10uF., 20%, 50V, Electrolytic.	3198 025 51090
C407	0.01uF., 10%, 50V, Ceramic	4835 122 87042
C408	10uF., 20%, 50V, Electrolytic.	3198 025 51090
C600	33pF., 5%, 50V, Ceramic.	3198 016 03390
C601	0.1uF., 25V, Ceramic	3198 017 21040
C602	82pF., 5%, 50V, Ceramic.	3198 016 08290
C603	0.1uF., 25V, Ceramic	3198 017 21040
C604	0.033uF., 10%, 50V, Ceramic.	3198 017 03330
C605	0.33uF., 35V, Electrolytic	4835 124 97037
C606	0.1uF., 25V, Ceramic	3198 017 21040
C607	0.1uF., 25V, Ceramic	3198 017 21040
C608	82pF., 5%, 50V, Ceramic.	3198 016 08290
C609	82pF., 5%, 50V, Ceramic.	3198 016 08290
C611	1uF., 20%, 50V, Electrolytic	3198 025 51080
C612	0.1uF., 25V, Ceramic	3198 017 21040
C615	2.2uF., 25V, Electrolytic.	4835 124 97179
C616	0.1uF., 10%, 50V, Ceramic.	4835 122 87061
C617	1000pF., 10%, 50V, Ceramic	3198 017 01020
C618	0.01uF., 10%, 50V, Ceramic	3198 017 01030
C619	0.47uF., 100V, Metalized Polyester	4835 121 47222
C620	0.018uF., 10%, 50V, Ceramic.	4835 122 87533
C621	100uF., 25V, Electrolytic.	3198 025 31010
C622	100uF., 25V, Electrolytic.	3198 025 31010
C623	1uF., 35V, Electrolytic.	4835 124 97175
C624	680pF., 5%, 50V, Ceramic	3198 016 06810
C625	82pF., 5%, 50V, Ceramic.	4835 122 87593
C628	0.22uF., 50V, Ceramic.	4835 122 87087
C629	68pF., 5%, 50V, Ceramic.	3198 016 06890
C637	4700pF., 10%, 50V, Ceramic	3198 017 04720
C638	0.1uF., 25V, Ceramic	3198 017 21040
C639	0.33uF., 35V, Electrolytic	4835 124 97037
C640	0.012uF., 10%, 50V, Ceramic.	4835 122 87501
C641	0.1uF., 25V, Ceramic	3198 017 21040
C642	2.2uF., 25V, Electrolytic.	4835 124 97179
C643	200pF., 5%, 50V, Ceramic	4835 122 87092
C645	620pF., 5%, 50V, Ceramic	4835 122 87089
C647	1000pF., 10%, 50V, Ceramic	4835 122 87041
C648	120pF., 5%, 50V, Ceramic	4835 122 87046
C649	51pF., 5%, 50V, Ceramic.	4835 122 87054
C650	180pF., 5%, 50V, Ceramic	4835 122 87028
C651	10uF., 20%, 50V, Electrolytic.	3198 025 51090
C654	0.1uF., 25V, Ceramic	3198 017 21040
C655	220uF., 16V, Electrolytic.	3198 025 22210
C656	100uF., 16V, Electrolytic.	3198 025 21010
C658	360pF., 5%, 50V, Ceramic	4835 122 87484
C659	180pF., 5%, 50V, Ceramic	4835 122 87028
C660	120pF., 5%, 50V, Ceramic	3198 016 01210
C661	15pF., 5%, 50V, Ceramic.	4835 122 87047
C662	0.1uF., 25V, Ceramic	3198 017 21040
C664	0.1uF., 25V, Ceramic	3198 017 21040
C665	0.1uF., 25V, Ceramic	3198 017 21040
C667	2.2uF., 25V, Electrolytic.	4835 124 97179
C675	0.1uF., 25V, Ceramic	3198 017 21040
C676	82pF., 5%, 50V, Ceramic.	4835 122 87038
C677	0.033uF., 10%, 50V, Ceramic.	3198 017 03330
C679	43pF., 5%, 50V, Ceramic.	2020 552 94276
C680	10uF., 20%, 50V, Electrolytic.	3198 025 51090
C681	56P 5%, 50V, Ceramic	4835 122 87096
C690	220uF., 25V, Electrolytic.	3198 025 32210
C691	0.1uF., 25V, Ceramic	3198 017 21040
C699	1uF., 35V, Electrolytic.	4835 124 97175
C719	0.01uF., 10%, 50V, Ceramic	3198 017 01030
C720	47uF., 20%, 25V, Electrolytic.	3198 025 34790
C721	0.1uF., 25V, Ceramic	3198 017 21040
C722	47uF., 20%, 25V, Electrolytic.	3198 025 34790
C723	0.33uF., 35V, Electrolytic	4835 124 97037
C724	0.1uF., 25V, Ceramic	3198 017 21040
C729	10uF., 20%, 50V, Electrolytic.	3198 025 51090
C731	0.1uF., 10%, 50V, Ceramic.	4835 122 87061
C732	47uF., 20%, 25V, Electrolytic.	3198 025 34790
C734	0.01uF., 10%, 50V, Ceramic	3198 017 01030
C735	0.01uF., 10%, 50V, Ceramic	3198 017 01030
C736	0.01uF., 10%, 50V, Ceramic	4835 122 87042
C738	10pF., 5%, 50V, Ceramic.	3198 016 01090
C749	10pF., 5%, 50V, Ceramic.	3198 016 01090
C750	100uF., 25V, Electrolytic.	3198 025 31010
C760	0.01uF., 10%, 50V, Ceramic	3198 017 01030
C766	0.01uF., 10%, 50V, Ceramic	3198 017 01030
C767	10pF., 5%, 50V, Ceramic.	4835 122 87045
C1000	0.1uF., 10%, 50V, Ceramic.	4835 122 87061
C1001	0.22uF., 50V, Ceramic.	4835 122 87087
C1002	0.1uF., 25V, Ceramic	3198 017 21040
C1003	0.22uF., 50V, Ceramic.	4835 122 87087
C1004	680pF., 5%, 50V, Ceramic	3198 016 06810
C1005	100pF., 5%, 50V, Ceramic	3198 016 01010
C1006	100pF., 5%, 50V, Ceramic	3198 016 01010
C1007	47uF., 20%, 25V, Electrolytic.	3198 025 34790
C1009	100pF., 5%, 50V, Ceramic	3198 016 01010
C1010	100pF., 5%, 50V, Ceramic	3198 016 01010
C1011	220pF., 5%, 50V, Ceramic	3198 016 02210
C1012	1000pF., 10%, 50V, Ceramic	3198 017 01020
C1013	1uF., 35V,Electrolytic	4835 124 97175
C1014	100pF., 5%, 50V, Ceramic	3198 016 01010
C1016	220uF., 25V, Electrolytic.	3198 025 32210
C1017	1000pF., 10%, 50V, Ceramic	3198 017 01020
C1020	100pF., 5%, 50V, Ceramic	3198 016 01010
C1021	0.01uF., 10%, 50V, Ceramic	3198 017 01030
C1022	0.01uF., 10%, 50V, Ceramic	3198 017 01030
C1023	0.01uF., 10%, 50V, Ceramic	3198 017 01030
C1025	0.01uF., 10%, 50V, Ceramic	3198 017 01030
C1026	560pF., 5%, 50V,Ceramic.	4835 122 87055
C1027	0.1uF., 100V, Metalized Polyester.	2222 365 22104
C1028	0.01uF., 10%, 50V, Ceramic	3198 017 01030
C1029	1uF., 20%, 50V, Electrolytic	3198 025 51080
C1031	0.1uF., 10%, 50V, Ceramic.	4835 122 87061
C1034	12pF., 5%, 50V, Ceramic.	3198 016 01290
C1035	12pF., 5%, 50V, Ceramic.	3198 016 01290
C1037	0.01uF., 10%, 50V, Ceramic	4835 122 87042
C1038	0.01uF., 10%, 50V, Ceramic	4835 122 87042
C1039	0.01uF., 10%, 50V, Ceramic	3198 017 01030
C1040	0.1uF., 25V, Ceramic	3198 017 21040
C1041	0.01uF., 10%, 50V, Ceramic	3198 017 01030
C1042	0.01uF., 10%, 50V, Ceramic	3198 017 01030
C1043	1000pF., 10%, 50V, Ceramic	3198 017 01020
C1044	0.1uF., 10%, 50V, Ceramic.	4835 122 87061
C1046	10uF., 10V, Electrolytic	4835 124 97178
C1050	0.1uF., 10%, 50V, Ceramic.	4835 122 87061
C1051	0.1uF., 10%, 50V, Ceramic.	4835 122 87061
C1052	1uF., 35V, Electrolytic.	4835 124 97175
BRSXXX	0 ohm, "Chip" Jumper	4835 111 27056
BRXXX	0 ohm, Jumper.	3198 021 90010
BRXXX	0 ohm, "Chip" Jumper	4835 111 27056

S = Safety Part   Be sure to use exact replacement part.

S	R3	22 ohm, 5%, 1/2W, Metal Film	4835 116 57708
	R4	100 ohm, 5%, 1/2W, Metal Film	4835 116 57684
	R5	22k, 5%, 1/2W, Metal Film	4835 116 57706
	R6	1k, 5%, 1/4W, Carbon Film	4835 111 37022
	R11	22k, 5%, 1/10W, Carbon Film	4835 111 37441
	R12	10k, 5%, 1/2W, Metal Film	4835 116 57686
	R13	100 ohm, 5%, 1/2W, Metal Film	4835 116 57684
	R14	100 ohm, 5%, 1/10W, Carbon Film	4835 111 37432
	R17	180k, 5%, 1/10W, Carbon Film	4835 111 37484
	R18	2.2k, 5%, 1/10W, Carbon Film	4835 111 37234
	R19	2.2 Meg ohm, 5%, 1/10W, Carbon Film	4835 111 27047
	R20	180k, 5%, 1/10W, Carbon Film	4835 111 37484
	R21	2.2k, 5%, 1/10W, Carbon Film	4835 111 37234
	R22	2.2 Meg ohm, 5%, 1/10W, Carbon Film	4835 111 27047
	R29	75 ohm, 5%, 1/10W, Carbon Film	4835 111 37276
	R30	75 ohm, 5%, 1/10W, Carbon Film	4835 111 37276
	R31	2.2k, 5%, 1/4W, Carbon Film	3198 011 02220
	R32	1k, 5%, 1/10W, Carbon Film	4822 051 10102
	R33	1k, 5%, 1/10W, Carbon Film	4822 051 10102
	R34	2.2k, 5%, 1/4W, Carbon Film	3198 011 02220
S	R35	100 ohm, 5%, 1/2W, Metal Film	4835 116 57684
	R37	180k, 5%, 1/10W, Carbon Film	4835 111 37484
	R38	180k, 5%, 1/10W, Carbon Film	4835 111 37484
	R44	560 ohm, 5%, 1/10W, Carbon Film	4835 111 27054
	R45	1.6k, 5%, 1/10W, Carbon Film	3198 021 51620
	R46	510 ohm, 5%, 1/10W, Carbon Film	3198 021 55110
	R47	1.8k, 5%, 1/10W, Carbon Film	4835 111 37231
	R48	820 ohm, 5%, 1/10W, Carbon Film	4835 111 37466
	R49	1.6k, 5%, 1/10W, Carbon Film	3198 021 51620
	R51	47k, 5%, 1/10W, Metal Film	4835 111 37445
	R52	47k, 5%, 1/10W, Metal Film	4835 111 37445
	R55	33k, 5%, 1/10W, Carbon Film	4835 111 37248
	R56	33k, 5%, 1/10W, Carbon Film	4835 111 37248
	R59	1k, 5%, 1/10W, Carbon Film	4822 051 10102
S	R63	10 ohm, 5%, 1/4W, Carbon Film	3198 011 01090
	R64	150 ohm, 5%, 1/4W, Carbon Film	3198 011 01510
	R65	150 ohm, 5%, 1/4W, Carbon Film	3198 011 01510
	R66	68 ohm, 5%, 1/4W, Carbon Film	3198 011 06890
	R67	150 ohm, 5%, 1/10W, Carbon Film	3198 021 51510
	R71	100k, 5%, 1/2W, Metal Film	4835 116 57687
S	R74	51 ohm, 5%, 1/4W, Carbon Film	4835 111 37138
S	R76	51 ohm, 5%, 1/4W, Carbon Film	4835 111 37138
	R83	100 ohm, 5%, 1/2W, Metal Film	4835 116 57684
	R84	100 ohm, 5%, 1/2W, Metal Film	4835 116 57684
	R89	100k, 5%, 1/10W, Carbon Film	4835 111 37434
	R90	220k, 5%, 1/10W, Carbon Film	4835 111 37235
	R91	10k, 5%, 1/2W, Metal Film	4835 116 57686
	R100	10k, 5%, 1/10W, Carbon Film	4835 111 37216
	R101	20k, 5%, 1/10W, Carbon Film	3198 021 52030
	R102	2.2k, 5%, 1/10W, Carbon Film	4835 111 37234
	R103	8.2k, 5%, 1/10W, Carbon Film	4835 111 37448
	R104	160 ohm, 5%, 1/10W, Carbon Film	3198 021 51610
	R105	100 ohm, 5%, 1/2W, Metal Film	4835 116 57684
	R106	100 ohm, 5%, 1/2W, Metal Film	4835 116 57684
S	R107	33 ohm, 5%, 1/2W, Metal Film	4835 116 57366
	R108	2.2k, 5%, 1/10W, Carbon Film	4835 111 37234
	R109	20k, 5%, 1/10W, Carbon Film	3198 021 52030
	R110	2.2k, 5%, 1/10W, Carbon Film	4835 111 37234
	R111	10k, 5%, 1/10W, Carbon Film	4835 111 37216
	R112	22k, 5%, 1/10W, Carbon Film	4835 111 37441
	R113	22k, 5%, 1/10W, Carbon Film	4835 111 37441
	R115	1k, 5%, 1/10W, Carbon Film	4822 051 10102
	R116	22k, 5%, 1/10W, Carbon Film	4835 111 37441
	R117	22k, 5%, 1/2W, Metal Film	4835 116 57706
	R118	47k, 5%, 1/4W, Carbon Film	3198 011 04730
	R119	22k, 5%, 1/2W, Metal Film	4835 116 57706
	R120	22k, 5%, 1/10W, Carbon Film	4835 111 37441
	R121	47k, 5%, 1/4W, Carbon Film	3198 011 04730
	R122	470 ohm, 5%, 1/4W, Carbon Film	3198 011 14710
	R123	2.7k, 5%, 1/4W, Carbon Film	3198 011 02720
	R124	47k, 5%, 1/10W, Metal Film	4835 111 37445
	R125	100k, 5%, 1/2W, Metal Film	4835 116 57687
	R126	100k, 5%, 1/2W, Metal Film	4835 116 57687
	R127	100k, 5%, 1/10W, Carbon Film	4835 111 37434
	R128	10k, 5%, 1/10W, Carbon Film	4835 111 37216
	R133	47k, 5%, 1/4W, Carbon Film	3198 011 04730
	R134	100k, 5%, 1/10W, Carbon Film	4835 111 37434
	R139	10k, 5%, 1/10W, Carbon Film	4835 111 37216
	R172	100k, 5%, 1/10W, Carbon Film	4835 111 37434
	R175	100k, 5%, 1/2W, Metal Film	4835 116 57687
	R177	1k, 5%, 1/10W, Carbon Film	4822 051 10102
	R178	1k, 5%, 1/10W, Carbon Film	4822 051 10102
	R179	47 ohm, 5%, 1/2W, Metal Film	4835 116 57727
	R186	12k, 5%, 1/4W, Carbon Film	3198 011 01230
	R187	1.5k, 5%, 1/10W, Carbon Film	4835 111 37437
	R189	1.5k, 5%, 1/10W, Carbon Film	4835 111 37437
	R190	12k, 5%, 1/4W, Carbon Film	3198 011 01230
	R191	4.7 ohm, 5%, 1/10W, Carbon Film	3198 021 54780
	R192	4.7 ohm, 5%, 1/10W, Carbon Film	3198 021 54780
	R193	220k, 5%, 1/10W, Carbon Film	4835 111 37235
	R194	1k, 5%, 1/2W, Metal Film	4835 116 57685
	R195	100k, 5%, 1/2W, Metal Film	4835 116 57687
	R196	100 ohm, 5%, 1/2W, Metal Film	4835 116 57684
	R197	270k, 5%, 1/4W, Carbon Film	3198 011 02740
	R198	110k, 5%, 1/2W, Metal Film	2322 187 53114
	R199	100k, 5%, 1/2W, Metal Film	4835 116 57687
	R200	24k, 5%, 1/2W, Carbon Film	4835 110 47199
	R201	22k, 5%, 1/8W, Carbon Film	4835 111 37558
	R202	Control Adjust, 4.7k	2020 363 90236
	R203	9.1k, 5%, 1/10W, Carbon Film	3198 021 59120
	R204	6.8k, 5%, 1/4W, Carbon Film	2322 711 61682
	R205	2.2k, 5%, 1/4W, Carbon Film	2322 711 61222
	R206	2.7k, 5%, 1/4W, Carbon Film	3198 011 02720
	R207	6.2k, 5%, 1/4W, Carbon Film	2322 711 61622
	R208	9.1k, 5%, 1/2W, Metal Film	2322 187 53912
	R209	10k, 5%, 1/8W, Metal Film	4835 111 37556
	R212	390 ohm, 5%, 1/4W, Carbon Film	2322 711 61391
	R214	47 ohm, 5%, 1/10W, Carbon Film	4835 111 37262
	R215	1k, 5%, 1/4W, Carbon Film	4835 111 37022
	R216	270 ohm, 5%, 1/4W, Carbon Film	2322 711 61271
	R217	100k, 5%, 1/2W, Metal Film	4835 116 57687
	R218	62k, 5%, 1/4W, Carbon Film	2322 711 61623
	R219	47k, 5%, 1/4W, Carbon Film	4835 111 37561
	R220	100 ohm, 5%, 1/10W, Carbon Film	4835 111 37432
	R221	1k, 5%, 1/4W, Carbon Film	4835 111 37022
	R222	470 ohm, 5%, 1/10W, Carbon Film	4835 111 37259
	R228	680k, 5%, 1/10W, Carbon Film	3198 021 56840
	R229	3.6k, 5%, 1/4W, Carbon Film	2322 711 61362
	R230	47k, 5%, 1/4W, Carbon Film	4835 111 37561
	R231	4.7k, 5%, 1/8W, Metal Film	4835 111 37559
	R232	10k, 5%, 1/8W, Metal Film	4835 111 37556
	R233	47k, 5%, 1/4W, Carbon Film	4835 111 37561
	R234	680k, 5%, 1/10W, Carbon Film	3198 021 56840
	R235	1.8k, 5%, 1/4W, Carbon Film	4835 111 37065
	R236	330 ohm, 5%, 1/10W, Carbon Film	4835 111 37443
	R238	2.7k, 5%, 1/4W, Carbon Film	4835 111 37083
	R240	0 ohm, Carbon Film	4835 111 27056
	R241	0 ohm, Carbon Film	4835 111 27056
	R242	1k, 5%, 1/4W, Carbon Film	4835 111 37022
	R243	4.3k, 5%, 0.24W, Carbon Film	2322 711 61432
	R244	Control Adjust, 1k,	4835 100 17014
	R245	2.2k, 5%, 1/10W, Carbon Film	4835 111 37234
	R246	150k, 5%, 1/10W, Carbon Film	4835 111 27045
	R247	1.1k, 5%, 1/4W, Carbon Film	2322 711 61112
	R248	470 ohm, 5%, 1/10W, Carbon Film	4835 111 37259
	R255	100 ohm, 5%, 1/4W, Carbon Film	4835 111 37021
	R300	1/4W, 5%, 100 ohm, Carbon Composition	4835 110 57066
	R301	1k, 5%, 1/2W, Metal Film	4835 116 57685
	R302	4.7k, 5%, 1/8W, Metal Film	4835 111 37559
	R303	1k, 5%, 1/10W, Carbon Film	4822 051 10102
	R304	47k, 5%, 1/4W, Carbon Film	3198 011 04730
	R305	100k, 5%, 1/2W, Metal Film	4835 116 57687
	R306	100k, 5%, 1/10W, Carbon Film	4835 111 37434
	R307	100 ohm, 5%, 1/4W, Carbon Composition	4835 110 57066
	R308	47k, 5%, 1/10W, Metal Film	4835 111 37445
	R309	15k, 5%, 1/2W, Metal Film	4835 116 57698
	R310	4.7k, 5%, 1/10W, Carbon Film	4835 111 27052
	R311	100 ohm, 5%, 1/4W, Carbon Composition	4835 110 57066
	R312	10k, 5%, 1/2W, Metal Film	4835 116 57686
	R313	3.3k, 5%, 1/10W, Carbon Film	4835 111 37247
	R314	47k, 5%, 1/10W, Metal Film	4835 111 37445
	R315	100 ohm, 5%, 1/2W, Metal Film	4835 116 57684
	R316	100 ohm, 5%, 1/2W, Metal Film	4835 116 57684
	R317	4.7k, 5%, 1/2W, Metal Film	4835 116 57724
	R318	1k, 5%, 1/10W, Carbon Film	4822 051 10102
	R319	16k, 5%, 1/10W, Carbon Film	3198 021 51630
	R320	4.7k, 5%, 1/10W, Carbon Film	4835 111 27052
	R323	4.7k, 5%, 1/10W, Carbon Film	4835 111 27052
	R324	4.7k, 5%, 1/10W, Carbon Film	4835 111 27052
	R325	1k, 5%, 1/2W, Metal Film	4835 116 57685
	R326	1k, 5%, 1/4W, Carbon Film	4835 111 37022
	R327	4.7k, 5%, 1/10W, Carbon Film	4835 111 27052
	R328	4.7k,, 5%, 1/8W, Metal Film	4835 111 37559
	R329	470 ohm, 5%, 1/2W, Metal Film	4835 116 57723
	R330	470 ohm, 5%, 1/2W, Metal Film	4835 116 57723
	R331	4.7k, 5%, 1/8W, Metal Film	4835 111 37559
	R332	470 ohm, 5%, 1/2W, Metal Film	4835 116 57723
	R333	3.3k, 5%, 1/10W, Carbon Film	4835 111 37247
	R334	4.7k,, 5%, 1/8W, Metal Film	4835 111 37559
	R335	4.7k, 5%, 1/8W, Metal Film	4835 111 37559
	R336	4.7k, 5%, 1/10W, Carbon Film	4835 111 27052
	R337	47k, 5%, 1/4W, Carbon Film	3198 011 04730
	R338	470 ohm, 5%, 1/10W, Carbon Film	4835 111 37259
	R339	4.7k, 5%, 1/2W, Metal Film	4835 116 57724
	R340	47 ohm, 5%, 1/10W, Carbon Film	4835 111 37262
	R341	1k, 5%, 1/2W, Metal Film	4835 116 57685
	R342	3.3k, 5%, 1/10W, Carbon Film	4835 111 37247
	R343	3.3k, 5%, 1/10W, Carbon Film	4835 111 37247
	R344	4.7k, 5%, 1/10W, Carbon Film	4835 111 27052
	R346	1k, 5%, 1/2W, Metal Film	4835 116 57685
	R347	4.7k, 5%, 1/10W, Carbon Film	4835 111 27052
	R348	470 ohm, 5%, 1/2W, Metal Film	4835 116 57723
	R350	4.7k, 5%, 1/10W, Carbon Film	4835 111 27052
	R351	1k, 5%, 1/10W, Carbon Film	4822 051 10102

S = Safety Part   Be sure to use exact replacement part.

	R352	470 ohm, 5%, 1/10W, Carbon Film	4835 111 37259
	R353	1k, 5%, 1/10W, Carbon Film	4822 051 10102
	R354	1k, 5%, 1/10W, Carbon Film	4822 051 10102
	R355	1k, 5%, 1/10W, Carbon Film	4822 051 10102
	R356	1k, 5%, 1/10W, Carbon Film	4822 051 10102
	R357	100 ohm, 5%, 1/2W, Metal Film	4835 116 57684
	R358	100 ohm, 5%, 1/10W, Carbon Film	4835 111 37432
	R359	47k, 5%, 1/4W, Carbon Film	3198 011 04730
	R361	1k, 5%, 1/2W, Metal Film	4835 116 57685
	R363	4.7k, 5%, 1/10W, Carbon Film	4835 111 27052
	R364	100 ohm, 5%, 1/10W, Carbon Film	4835 111 37432
	R365	1k, 5%, 1/10W, Carbon Film	4822 051 10102
	R366	10k, 5%, 1/10W, Carbon Film	4835 111 37216
	R367	47 ohm, 5%, 1/2W, Metal Film	4835 116 57727
	R369	1k, 20%, 1/4W, Carbon Composition	4835 110 57318
	R370	1k, 20%, 1/4W, Carbon Composition	4835 110 57318
	R371	1k, 20%, 1/4W, Carbon Composition	4835 110 57318
	R372	1k, 20%, 1/4W, Carbon Composition	4835 110 57318
	R373	1k, 20%, 1/4W, Carbon Composition	4835 110 57318
	R374	1k, 20%, 1/4W, Carbon Composition	4835 110 57318
	R375	470 ohm, 5%, 1/10W, Carbon Film	4835 111 37259
	R376	470 ohm, 5%, 1/10W, Carbon Film	4835 111 37259
	R377	470 ohm, 5%, 1/10W, Carbon Film	4835 111 37259
	R379	4.7k, 5%, 1/10W, Carbon Film	4835 111 27052
	R380	2.2k, 5%, 1/10W, Carbon Film	4835 111 37234
	R381	10k, 5%, 1/10W, Carbon Film	4835 111 37216
	R382	2.2k, 5%, 1/10W, Carbon Film	4835 111 37234
	R383	22k, 5%, 1/10W, Carbon Film	4835 111 37441
	R390	100 ohm, 5%, 1/10W, Carbon Film	4835 111 37432
	R397	100k, 5%, 1/10W, Carbon Film	4835 111 37434
	R398	100k, 5%, 1/10W, Carbon Film	4835 111 37434
	R399	100k, 5%, 1/10W, Carbon Film	4835 111 37434
S	R402	10 ohm, 5%, 3W, Metal Oxide	2120 105 92585
	R600	1k, 5%, 1/2W, Metal Film	4835 116 57685
	R601	1k, 5%, 1/10W, Carbon Film	4822 051 10102
	R602	22k, 5%, 1/10W, Carbon Film	4835 111 37441
	R603	3.3k, 5%, 1/4W, Carbon Film	4835 111 37035
	R604	100 ohm, 5%, 1/2W, Metal Film	4835 116 57684
	R605	180 ohm 5%, 1/10W, Carbon Film	4835 111 37229
	R606	180 ohm, 5%, 1/10W, Carbon Film	4835 111 37229
	R607	2.2k, 5%, 1/10W, Carbon Film	4835 111 37234
	R608	0 ohm, 1/8W, Carbon Film	4835 110 67173
	R609	36k, 5%, 1/10W, Carbon Film	3198 021 53630
	R610	100 ohm, 5%, 1/2W, Metal Film	4835 116 57684
	R611	1k, 5%, 1/10W, Carbon Film	4822 051 10102
	R612	560 ohm, 5%, 1/10W, Carbon Film	4835 111 27054
	R613	47 ohm, 5%, 1/4W, Carbon Film	2322 711 61479
	R614	330 ohm, 5%, 1/10W, Carbon Film	4835 111 37443
	R615	390 ohm, 5%, 1/10W, Carbon Film	4835 111 37253
	R616	560 ohm, 5%, 1/10W, Carbon Film	4835 111 27054
	R617	10 ohm, 5%, 1/10W, Carbon Film	4835 111 37363
	R618	1k, 5%, 1/10W, Carbon Film	4822 051 10102
	R619	47 ohm, 5%, 1/4W, Carbon Film	2322 711 61479
	R620	360 ohm, 5%, 1/4W, Carbon Film	2322 711 61361
	R621	620 ohm, 5%, 1/4W, Carbon Film	2322 711 61621
	R622	360 ohm, 5%, 1/4W, Carbon Film	2322 711 61361
	R623	2k, 5%, 1/4W, Carbon Film	2322 711 61202
	R624	430 ohm, 5%, 1/4W, Carbon Film	3198 011 04310
	R625	2k, 5%, 1/10W, Carbon Film	4835 111 27091
	R626	100 ohm, 5%, 1/4W, Carbon Film	4835 111 37021
	R627	910 ohm, 5%, 1/4W, Carbon Film	2322 711 61911
	R628	51 ohm, 5%, 1/4W, Carbon Film	3198 011 05190
	R629	51k, 5%, 1/10W, Carbon Film	4835 111 27057
	R630	430 ohm, 5%, 1/10W, Carbon Film	3198 021 54310
	R631	110k, 5%, 1/10W, Carbon Film	3198 021 51140
	R632	270 ohm, 5%, 1/10W, Carbon Film	4835 111 37424
	R633	390 ohm, 5%, 1/4W, Carbon Film	3198 011 03910
	R634	51 ohm, 5%, 1/4W, Carbon Film	3198 011 05190
	R635	2.4k, 5%, 1/10W, Carbon Film	3198 021 52420
	R636	0 ohm, Carbon Film	4835 111 27056
	R637	1.5k, 5%, 1/2W, Metal Film	4835 116 57697
	R638	15k, 5%, 1/2W, Metal Film	4835 116 57698
	R640	330 ohm, 5%, 1/10W, Carbon Film	4835 111 37443
	R641	750 ohm, 5%, 1/4W, Carbon Film	4835 111 37121
	R642	430 ohm, 5%, 1/10W, Carbon Film	3198 021 54310
	R644	100 ohm, 5%, 1/10W, Carbon Film	4835 111 37432
	R649	2k, 5%, 1/4W, Carbon Film	2322 711 61202
	R650	330 ohm, 5%, 1/2W, Metal Film	4835 116 57713
	R655	3.6k, 5%, 1/10W, Carbon Film	3198 021 53620
	R656	2k, 5%, 1/10W, Carbon Film	4835 111 27091
	R658	100 ohm, 5%, 1/2W, Metal Film	4835 116 57684
	R659	100 ohm, 5%, 1/2W, Metal Film	4835 116 57684
	R660	10k, 5%, 1/2W, Metal Film	4835 116 57686
	R661	430 ohm, 5%, 1/4W, Carbon Film	4835 111 37101
	R662	100 ohm, 5%, 1/4W, Carbon Film	4835 111 37021
	R663	430 ohm, 5%, 1/4W, Carbon Film	4835 111 37101
	R664	100 ohm, 5%, 1/4W, Carbon Film	4835 111 37021
	R665	430 ohm, 5%, 1/4W, Carbon Film	4835 111 37101
	R666	100 ohm, 5%, 1/4W, Carbon Film	4835 111 37021
	R667	10k, 5%, 1/10W, Carbon Film	4835 111 37216
	R669	10k, 5%, 1/10W, Carbon Film	4835 111 37216
	R670	330k, 5%, 1/10W, Carbon Film	3198 021 53340
	R671	470 ohm, 5%, 1/4W, Carbon Film	4835 111 37104
	R672	470 ohm, 5%, 1/4W, Carbon Film	4835 111 37104
	R673	100 ohm, 5%, 1/10W, Carbon Film	4835 111 37432
	R674	1k, 5%, 1/10W, Carbon Film	4822 051 10102
	R675	2k, 5%, 1/10W, Carbon Film	4835 111 27091
	R676	620 ohm, 5%, 1/10W, Carbon Film	3198 021 56210
	R677	1k, 5%, 1/10W, Carbon Film	4822 051 10102
	R678	470 ohm, 5%, 1/10W, Carbon Film	4835 111 37259
	R679	100 ohm, 5%, 1/10W, Carbon Film	4835 111 37432
	R681	1k, 5%, 1/10W, Carbon Film	4822 051 10102
S	R682	47 ohm, 5%, 1/4W, Carbon Film	2322 711 61479
	R683	8.2k, 5%, 1/4W, Carbon Film	4835 111 37043
	R684	390 ohm, 5%, 1/10W, Carbon Film	4835 111 37253
	R685	1.8k, 5%, 1/4W, Carbon Film	4835 111 37065
	R686	100 ohm, 5%, 1/10W, Carbon Film	4835 111 37432
	R687	620 ohm, 5%, 1/10W, Carbon Film	3198 021 56210
	R688	470 ohm, 5%, 1/10W, Carbon Film	4835 111 37259
	R689	560 ohm, 5%, 1/10W, Carbon Film	4835 111 27054
	R690	1 Meg ohm, 5%, 1/4W, Carbon Film	2322 711 61105
	R691	10 ohm, 5%, 1/4W, Carbon Film	4835 111 37132
	R692	470 ohm, 5%, 1/10W, Carbon Film	4835 111 37259
	R694	13k, 5%, 1/10W, Carbon Film	4835 111 27059
	R695	100 ohm, 5%, 1/4W, Carbon Film	4835 111 37021
	R696	390 ohm, 5%, 1/10W, Carbon Film	4835 111 37253
	R697	390 ohm, 5%, 1/10W, Carbon Film	4835 111 37253
	R698	51 ohm, 5%, 1/4W, Carbon Film	3198 011 05190
	R699	180k, 5%, 1/10W, Carbon Film	4835 111 37484
	R724	12k, 5%, 1/4W, Carbon Film	2322 711 61123
	R725	100 ohm, 5%, 1/10W, Carbon Film	4835 111 37432
	R726	4.7k, 5%, 1/10W, Carbon Film	4835 111 27052
	R727	1k, 5%, 1/10W, Carbon Film	4822 051 10102
	R728	560 ohm, 5%, 1/10W, Carbon Film	4835 111 27054
	R729	560 ohm, 5%, 1/10W, Carbon Film	4835 111 27054
	R730	1k, 5%, 1/4W, Carbon Film	4835 111 37022
	R731	12k, 5%, 1/10W, Carbon Film	3198 021 51230
	R732	100 ohm, 5%, 1/4W, Carbon Film	4835 111 37021
	R733	4.7k,, 5%, 1/8W, Metal Film	4835 111 37559
	R734	1k, 5%, 1/10W, Carbon Film	4822 051 10102
	R735	560 ohm, 5%, 1/10W, Carbon Film	4835 111 27054
	R736	560 ohm, 5%, 1/10W, Carbon Film	4835 111 27054
	R737	1k, 5%, 1/10W, Carbon Film	4822 051 10102
	R738	1k, 5%, 1/4W, Carbon Film	4835 111 37022
	R739	1k, 5%, 1/4W, Carbon Film	4835 111 37022
S	R740	18 ohm, 5%, 1/4W, Carbon Film	2322 711 61189
	R759	10k, 5%, 1/10W, Carbon Film	4835 111 37216
	R772	100 ohm, 5%, 1/2W, Metal Film	4835 116 57684
	R773	100 ohm, 5%, 1/2W, Metal Film	4835 116 57684
	R774	470 ohm, 5%, 1/2W, Metal Film	4835 116 57723
	R776	5.1k, 2%, 1/8W, Carbon Film	2322 730 31512
	R777	10k, 5%, 1/10W, Carbon Film	4835 111 37216
	R778	2k, 5%, 1/10W, Carbon Film	4835 111 27091
	R779	1k, 5%, 1/10W, Carbon Film	4822 051 10102
	R783	4.7k, 5%, 1/10W, Carbon Film	4835 111 27052
	R785	2.2k, 2%, 1/8W, Carbon Film	2322 730 31222
	R786	15k, 5%, 1/10W, Carbon Film	4835 111 37458
	R787	3k, 5%, 1/10W, Carbon Film	4835 111 37554
	R788	1.8k, 5%, 1/10W, Carbon Film	4835 111 37231
	R790	10k, 5%, 1/10W, Carbon Film	4835 111 37216
	R791	6.8k, 5%, 1/4W, Carbon Film	3198 011 06820
	R794	200 ohm, 5%, 1/10W, Carbon Film	3198 021 52010
	R795	100 ohm, 5%, 1/10W, Carbon Film	4835 111 37432
	R796	220 ohm, 5%, 1/4W, Carbon Film	2322 711 61221
	R797	220 ohm, 5%, 1/4W, Carbon Film	2322 711 61221
	R798	100 ohm, 5%, 1/10W, Carbon Film	4835 111 37432
	R799	1k, 5%, 1/10W, Carbon Film	4822 051 10102
	R800	100 ohm, 5%, 1/10W, Carbon Film	4835 111 37432
	R801	1k, 5%, 1/10W, Carbon Film	4822 051 10102
	R802	100 ohm, 5%, 1/10W, Carbon Film	4835 111 37432
	R806	1k, 2% 1/8W, Carbon Film	4835 110 67216
	R808	390 ohm, 5%, 1/10W, Carbon Film	4835 111 37253
	R809	1.6k, 5%, 1/10W, Carbon Film	3198 021 51620
	R812	4.7k, 5%, 1/10W, Carbon Film	4835 111 27052
	R814	4.7 Meg ohm, 5%, 1/10W, Carbon Film	3198 021 54750
	R821	100 ohm, 5%, 1/4W, Carbon Film	4835 111 37021
	R822	2.2k, 5%, 1/10W, Carbon Film	4835 111 37234
	R1001	22k, 5%, 1/2W, Metal Film	4835 116 57706
	R1002	220k, 5%, 1/10W, Carbon Film	4835 111 37235
	R1003	100 ohm, 5%, 1/2W, Metal Film	4835 116 57684
	R1004	68 ohm, 5%, 1/4W, Carbon Film	3198 011 06890
	R1006	470 ohm, 5%, 1/2W, Metal Film	4835 116 57723
	R1007	1k, 5%, 1/2W, Metal Film	4835 116 57685
	R1008	220k, 5%, 1/10W, Carbon Film	4835 111 37235
	R1009	470k, 5%, 1/10W, Carbon Film	4835 111 37407
	R1012	12k, 5%, 1/10W, Carbon Film	3198 021 51230
	R1015	330 ohm, 5%, 1/4W, Carbon Film	4835 111 37034
S	R1016	100 ohm, 5%, 1/2W, Metal Film	4835 116 57684
	R1017	47 ohm, 5%, 1/10W, Carbon Film	4835 111 37262
	R1018	560 ohm, 5%, 1/10W, Carbon Film	4835 111 27054
	R1020	100 ohm, 5%, 1/2W, Metal Film	4835 116 57684
	R1021	22k, 5%, 1/2W, Metal Film	4835 116 57706
	R1022	22k, 5%, 1/2W, Metal Film	4835 116 57706
	R1023	100 ohm, 5%, 1/10W, Carbon Film	4835 111 37432

S = Safety Part   Be sure to use exact replacement part.

R1027	100 ohm, 5%, 1/10W, Carbon Film.	4835 111 37432
R1030	100 ohm, 5%, 1/10W, Carbon Film.	4835 111 37432
R1032	47k, 5%, 1/10W, Metal Film	4835 111 37445
R1050	1k, 5%, 1/10W, Carbon Film	4822 051 10102
R1051	1k, 5%, 1/10W, Carbon Film	4822 051 10102
R1052	1.5k, 5%, 1/10W, Carbon Film	4835 111 37437
R1053	750 ohm, 5%, 1/4W, Carbon Film	3198 011 07510
D100	Diode BAS216	4835 130 37905
D150	Diode 1N4148	4835 130 37048
D151	Diode 1N4148	4835 130 37048
D300	Diode 1N4148	4835 130 37048
D301	Diode BAS216	4835 130 37905
D302	Diode 1N4148	4835 130 37048
D303	Diode BAS216	4835 130 37905
D305	Diode BAS216	4835 130 37905
D306	Diode BAS216	4835 130 37905
D310	Diode BAS216	4835 130 37905
D311	Diode BAS216	4835 130 37905
D312	Diode BAS216	4835 130 37905
D313	Diode BAS216	4835 130 37905
D320	Diode 1N4148	4835 130 37048
D321	Diode BAS216	4835 130 37905
D322	Diode BAS216	4835 130 37905
D323	Diode BAS216	4835 130 37905
D324	Diode BAS216	4835 130 37905
D325	Diode BAS216	4835 130 37905
D401	Diode 1N4148	4835 130 37048
D600	Diode BAS216	4835 130 37905
D601	Diode BAS216	4835 130 37905
D602	Diode BAS216	4835 130 37905
D603	Diode BAS216	4835 130 37905
D605	Diode BAS216	4835 130 37905
D607	Diode BAS216	4835 130 37905
D608	Diode 1N4148	4835 130 37048
D609	Diode 1N4148	4835 130 37048
D610	Diode 1N4148	4835 130 37048
D611	Diode BAS216	4835 130 37905
D612	Diode BAS216	4835 130 37905
D613	Diode 1N4148	4835 130 37048
D614	Diode 1N4148	4835 130 37048
D615	Diode BAS216	4835 130 37905
D617	Diode 1N4148	4835 130 37048
D618	Diode 1N4148	4835 130 37048
D630	Diode BAS216	4835 130 37905
D700	Diode BAS216	4835 130 37905
IC1	IC, A/V Switch	4835 209 87952
IC106	IC, 10/25W Hi-Fi Power Audio Amp	4835 209 87082
IC107	IC 2-Channel Multi/Demultiplexer	4835 209 17033
IC120	IC, Stereo Decoder & Audio Processor	4835 209 88337
IC200	IC, IF Signal Processor.	4835 209 87757
IC300	IC LC864265A, Tuning Microprocessor.	3135 010 02991
IC304	IC ST24C02B1, EEPROM	4835 209 88326
IC400	IC MC7812CT, 12V Regulator	9334 006 10682
IC401	IC MC7805CT, 5V Regulator.	9334 536 00682
IC600	IC, Y/C/S Processor.	4835 209 88331
IC606	IC, 9V Regulator	4835 209 88009
IC701	IC, Chroma/Luma Switch	4835 209 87089
IC703	IC MC7805CT.	9334 536 00682
IC1001	IC MC44461B.	9322 107 07682
Q3	Transistor, NPN BC847B	4822 130 60511
Q4	Transistor, Buffer	4822 130 60511
Q5	Transistor, Buffer	4822 130 60511
Q7	Transistor, NPN BC847B	4822 130 60511
Q8	Transistor, NPN BC847B	4822 130 60511
Q9	P-Channel JFET, Mono/Stereo Switch	9340 053 20126
Q12	Transistor, Mono/Stereo Inverter	4822 130 60511
Q14	Transistor, NPN BC847B	4822 130 60511
Q16	Transistor, NPN BC847B	4822 130 60511
Q17	Transistor, NPN BC847B	4822 130 60511
Q141	Transistor, Variable Audio Out Switch.	4822 130 60511
Q152	P-Channel JFET, Mute	4835 130 47083
Q153	P-Channel JFET, Mute	4835 130 47083
Q154	P-Channel JFET, Mute	4835 130 47083
Q155	P-Channel JFET, Mute	4835 130 47083
Q156	Transistor, Mute Inverter.	4835 130 47055
Q200	Transistor, Video Amp.	5322 130 60508
Q201	Transistor, Coincidence Detector	5322 130 60508
Q202	Transistor, Coincidence Detector	4822 130 60511
Q203	Transistor, Coincidence Detector	5322 130 60508
Q204	Transistor, Video Buffer	4822 130 60511
Q300	Transistor, Standby LED Switch	4822 130 60511
Q301	Transistor, SDA Amp.	4822 130 60511
Q302	Transistor, SCC Amp.	4822 130 60511
Q303	Transistor, Power LED Switch	4822 130 60511
Q304	Transistor, Fast Blanking Buffer	4822 130 60511
Q305	Transistor, OSD Intensity Buffer	4822 130 60511
Q306	Transistor, Horizontal Amp	4822 130 60511
Q308	Transistor, Vertical Amp	4822 130 60511
Q309	Transistor, PNP Switch	5322 130 60508
Q313	Transistor, SCC Amp.	4822 130 60511
Q314	Transistor, SDA Amp.	4822 130 60511
Q315	Transistor, Reset (Inverted)	5322 130 60508
Q600	Transistor, Chroma Switch.	4822 130 60511
Q601	Transistor, Chroma Delay	5322 130 60508
Q602	Transistor, Chroma Buffer.	5322 130 60508
Q603	Transistor, OSD Intensity Modulator.	5322 130 60508
Q604	Transistor, Red Driver	4822 130 60511
Q605	Transistor, Green Driver	4822 130 60511
Q606	Transistor, Blue Driver.	4822 130 60511
Q607	Transistor, Blue Linearity	5322 130 60508
Q608	Transistor, Blue Linearity	4822 130 60511
Q609	Transistor, 2.2V Regulator	4822 130 60511
Q611	Transistor, Sync Buffer.	5322 130 60508
Q612	Transistor, ABL Buffer	5322 130 60508
Q613	Transistor, ABL Clamp.	5322 130 60508
Q614	Transistor, Vertical Buffer.	4822 130 60511
Q616	Transistor, Green Buffer	5322 130 60508
Q617	Transistor, Green Clipper.	5322 130 60508
Q618	Transistor, Red Buffer	5322 130 60508
Q619	Transistor, Red Clipper.	5322 130 60508
Q620	Transistor, Blue Buffer.	5322 130 60508
Q621	Transistor, Blue Clipper	5322 130 60508
Q623	Transistor, Common Base Allpass.	4822 130 60511
Q624	Transistor, Chroma Buffer.	4822 130 60511
Q625	Transistor, Chroma Buffer.	4822 130 60511
Q626	Transistor, Common Base Allpass.	4822 130 60511
Q627	Transistor, Common EmitterAllpass.	5322 130 60508
Q632	Transistor, Blue Linearity	5322 130 60508
Q635	Transistor, Horizontal Killer.	4822 130 60511
Q703	Transistor, SVHSC Amp.	4822 130 60511
Q704	Transistor, SVHSC Amp.	5322 130 60508
Q705	Transistor, SVHSL Amp.	4822 130 60511
Q715	Transistor, NPN BC847B	4822 130 60511
Q720	Transistor, SVHSL Amp.	5322 130 60508
Q1000	Transistor, PNP T2907.	4835 130 47065
Q1010	Transistor, NPN BC847B	4822 130 60511
Q1020	Transistor, PNP BC85	5322 130 60508
Z100	Zener Diode, 8.2V.	4835 130 37503
Z101	Zener Diode, 8.2V.	4835 130 37503
Z200	Zener Diode, MMSZ5257B	4835 130 37823
Z300	Zener Diode, MMSZ5231B	4835 220 17061
L116	Peaking Coil, 10uH..	4835 157 58198
L200	Peaking Coil, 0.68uH., 5%.	4835 150 57053
L201	Adjustable Coil, 4.5MHz.	4835 157 57113
L202	Adjustable Coil, 45.75MHz.	4835 157 57594
L203	Peaking Coil, 2.2uH., 5%	4835 150 57054
L204	Adjustable Coil, 4.75MHz	4835 157 57485
L205	Peaking Coil, 2.2uH., 5%	4835 150 57054
L206	Peaking Coil, 8.2uH. ,5%	4835 150 57056
L208	Peaking Coil, 12uH, 5%	4835 150 57058
L209	Peaking Coil, 1000uH., 10%	4835 157 57828
L210	Peaking Coil, 47uH., 5%.	4835 150 57055
L211	Peaking Coil, 12uH., 5%.	4835 150 57058
L212	Peaking Coil, 12uH., 10%	4835 157 67075
L300	Peaking Coil, 5.6uH., 5%	2422 535 94322
L301	Peaking Coil, 12uH., 5%.	4835 150 57058
L302	Peaking Coil, 12uH., 5%.	4835 150 57058
L303	Peaking Coil, 6.8uH., 10%.	2422 535 96708
L313	Peaking Coil, 4.7uH., 10%.	4835 157 67057
L373	Peaking Coil, 0.68uH., 20%	4835 157 57596
L374	Peaking Coil, 6.8uH., 10%.	2422 535 96708
L375	Peaking Coil, 0.68uH., 20%	4835 157 57596
L379	Peaking Coil, 0.68uH., 20%	4835 157 57596
L405	Ferrite Bead, 100MHz	4835 157 57995
L600	Peaking Coil, 33uH,. 5%.	4835 157 58113
L601	Peaking Coil, 10uH., 10%	4835 157 67074
L602	Peaking Coil, 10uH., 5%	4835 150 57008
L604	Peaking Coil, 12uH., 5%	4835 157 57831
L605	Peaking Coil, 10uH., 5%	4835 150 57008
L606	Peaking Coil, 3.3uH., 5%.	4835 157 57832
L607	Peaking Coil, 3.9uH., 5%.	4835 157 57893
L608	Peaking Coil, 12uH., 5%.	4835 157 57831
L609	Peaking Coil, 22uH., 5%.	4835 157 67018
L610	Peaking Coil, 15uH., 5%.	4835 157 57057
L611	Peaking Coil, 5.6uH., 5%	4835 157 57833
L612	Peaking Coil, 27uH., 5%.	4835 157 67019
L613	Peaking Coil, 4.7uH., 5%	4835 150 57028
L614	Peaking Coil, 4.7uH., 5%	4835 150 57028
L615	Peaking Coil, 4.7uH., 5%	4835 150 57028
L700	Peaking Coil, 10uH., 10%	4835 157 67074
L707	Peaking Coil, 4.7uH., 5%	4835 150 57077
L1000	Peaking Coil, 1.2uH., 5%	4835 157 67028
L1001	Peaking Coil, 6.8 uH., 5%.	4835 157 57061
L1003	Peaking Coil, 6.8uH., 5%	4835 157 57061
L1004	Peaking Coil, 4.7uH., 5%	4835 150 57028
BKT1	Jack Panel Bracket	3135 011 01900
CLP106	Spring Clip for IC 106	3135 011 02270
MEC4	IF Shield.	3135 011 02360
F100	Fuse, 5 Amp.	4835 253 37021
HS106A	Heatsink for IC 106.	3135 011 02260
HS400	Heatsink for IC 400.	3135 011 02510
HS401	Heatsink for IC 401.	3135 011 03291
HS703	Heatsink for IC 703.	3135 011 02510
J2	Phono Jack Assembly.	4835 265 97388

S = Safety Part   Be sure to use exact replacement part.

	J3	Jack Assembly	4835 265 97386
	J5	4 Pin Push Terminal	4835 265 97448
	J250	5 Pin Board Connector	2422 025 15832
	J300	7 Pin Board Connector	2422 025 14674
	J302	4 Pin Board Connector	2422 025 14672
	J305	3 Pin Board Connector	2422 025 14669
	J307	8 Pin Board Connector	2422 025 15025
	J402	7 Pin Board Connector	2422 025 15193
	J403	7 Pin Board Connector	2422 025 14674
	J467	7 Pin Board Connector	2422 025 15024
	J601	7 Pin Board Connector	2422 025 14674
	J608	10 Pin Board Connector	2422 025 15196
	SHD1T	Shield for Small Signal Board	3135 011 02251
	SHD3T	Shield for Small Signal Board	3135 011 02251
	TUNEXT	Connector for Tuner	4835 265 97076
	UV1236	Tuner, UV1236	4835 210 47081
	Y100	Ceramic Resonator	4835 122 97102
	Y1000	Crystal Resonator, 14.318MHz	4835 242 77059
	Y1001	Crystal Resonator, 14.318MHz	4835 242 77059
	Y200	Saw Filter	4835 153 97024
	Y202	Ceramic Filter, 4.5MHz	4835 154 97168
	Y203	Ceramic Filter, 4.5MHz	4835 153 57004
	Y301	Peizoelectric Crystal	4835 242 77283
	Y600	Crystal Resonator 3.579MHz	2422 543 00862
	Y601	Ceramic Resonator	4835 153 97004
	Y603	Comb Filter	2422 549 43197

LARGE SIGNAL PANEL

		LARGE SIGNAL PANEL	
S	C402	1000pF., 10%, 1kV, Ceramic	4835 122 47373
	C403	6800pF., 10%, 250Vac Metal Film	4835 122 97082
S	C406	220pF., 10%, 1kV, Ceramic	4835 122 47458
S	C407	3900pF., 5%, 1kV, Polypropylene	4835 121 47636
	C408	330pF., 10%, 500V, Ceramic	4835 122 47648
	C409	3300uF., 35V, Electrolytic	4835 124 47559
	C410	0.1uF., 10%, 100V, Polyester	4822 121 41608
	C411	0.1uF., 400V, Polyester	0025 968 41049
	C412	330pF., 10%, 500V, Ceramic	4835 122 47648
	C413	330pF., 10%, 500V, Ceramic	4835 122 47648
	C414	330uF., 25V, Electrolytic	4835 124 47632
	C415	100pF., 5%, 50V, Ceramic	4835 122 87025
	C416	4700pF., 2.5%, 63V, Polypropylene	4835 121 47087
	C417	2200pF., 10%, 50V, Ceramic	4835 122 87524
	C418	1000pF., 50V, Ceramic	4835 122 47004
	C419	1000pF., 10%, 50V, Ceramic	4835 122 87041
	C420	100pF., 5%, 50V, Ceramic	4835 122 87025
	C421	0.1uF., 10%, 50V, Ceramic	4835 122 87061
	C422	0.1uF., 10%, 100V, Polyester	4822 121 41608
S	C423	470uF., 250V, Electrolytic	4835 124 47141
S	C424	470uF., 250V, Electrolytic	4835 124 47141
	C425	0.1uF., 400V, Polyester	0025 968 41049
	C426	330pF., 10%, 500V, Ceramic	4835 122 47648
	C427	3300uF., 25V, Electrolytic	4835 124 47672
	C428	0.1uF., 10%, 100V, Polyester	4822 121 41608
	C429	1000pF., 10%, 1kV, Ceramic	4835 122 47373
S	C430A	22uF., 250V, Electrolytic	4835 124 47021
	C431	1000pF., 10%, 1kV, Ceramic	4835 122 47373
	C432	1500uF., 35V, Electrolytic	4835 124 47581
	C433	0.1uF., 10%, 100V, Polyester	4822 121 41608
	C434	1000pF., 10%, 1kV, Ceramic	4835 122 47373
	C435	3300uF., 25V, Electrolytic	4835 124 47575
	C436	0.1uF., 10%, 100V, Polyester	4822 121 41608
	C437	100pF., 5%, 50V, Ceramic	4835 122 87025
	C438	1000pF., 10%, 1kV, Ceramic	4835 122 47373
	C439	0.1uF., 10%, 100V, Polyester	4822 121 41608
	C440	220pF., 10%, 1kV, Ceramic	4835 122 47458
	C441	6800uF., 16V, Electrolytic	4835 124 47579
	C442	470uF., 200V, Electrolytic	4835 124 47097
	C443	0.1uF., 250V, Polyester	4835 121 47278
	C444	1000pF., 10%, 1kV, Ceramic	4835 122 47373
	C445	1000pF., 10%, 1kV, Ceramic	4835 122 47373
	C447	0.1uF., 10%, 100V, Polyester	4822 121 41608
S	C449	0.1uF., 10%, 250Vac, Metallic	4835 122 97067
	C450	0.68uF., 10%, 250Vac, Metallic	4835 122 97068
	C451	0.47uF., 400V, Polyester	4835 121 47634
	C452	1.5uF., 50V, Electrolytic	4835 124 47568
	C453	0.01uF., 10%, 50V, Ceramic	4835 122 87042
	C454	47uF., 25V, Electrolytic	4835 124 47708
	C455	0.1uF., 10%, 50V, Ceramic	4835 122 87061
	C456	100uF., 50V, Electrolytic	4835 124 47563
	C457	1uF., 50V, Electrolytic	4835 121 47406
	C458	4.7uF., 20%, 50V, Electrolytic	4835 124 47072
	C459	2200uF., 50V, Electrolytic	4835 124 47574
	C468	0.1uF., 10%, 50V, Ceramic	4835 122 87061
	C469	330pF., 10%, 500V, Ceramic	4835 122 47648
	C470	0.1uF., 10%, 50V, Ceramic	4835 122 87061
	C471	1uF., 50V, Electrolytic	4835 121 47406
	C472	0.22uF., 20%, 50V, Ceramic	4835 122 87087
	C473	1000pF., 10%, 1kV, Ceramic	4835 122 47373
	C474	2200uF., 50V, Electrolytic	4835 124 47574
	C475	0.1uF., 10%, 100V, Polyester	4822 121 41608
	C476	0.015uF., 400V, Polyester	4835 121 47203
	C477	0.015uF., 400V, Polyester	4835 121 47203
	C478	1000uF., 50V, Electrolytic	4835 124 47573
	C479	1000uF., 50V, Electrolytic	4835 124 47573
	C480	0.1uF., 10%, 100V, Polyester	4822 121 41608
	C481	100uF., 25V, Electrolytic	4835 124 47501
	C482	0.1uF., 50V, Ceramic	4835 122 87375
	C483	100uF., 25V, Electrolytic	4835 124 47501
	C499	0.1uF., 10%, 50V, Ceramic	4835 122 87061
	C501	0.47uF., 5%, 100V, Polyester	4835 121 47364
	C503	680pF., 5%, 50V, Ceramic	4835 122 87037
	C511	0.1uF., 10%, 50V, Polyester	4822 121 42094
	C555	1000uF., 35V, Electrolytic	4835 124 47551
	C557	100uF., 50V, Electrolytic	4835 124 47563
	C558	150pF., 10%, 500V, Ceramic	2020 557 90711
	C559	0.068uF., 10%, 100V, Polyester	4835 121 47042
	C560	2.2uF., 50V, Electrolytic	4835 124 47502
	C561	3300uF., 35V, Electrolytic	4835 124 47559
	C564	0.047uF., 10%, 100V, Polyester	4835 121 47005
	C565	2200pF., 10%, 50V, Ceramic	4835 122 87083
	C567	0.022uF., 10%, 50V, Ceramic	4835 122 87064
	C569	0.1uF., 50V, Ceramic	4835 122 87375
	C570	0.1uF., 50V, Ceramic	4835 122 87375
	C571	0.1uF., 50V, Ceramic	4835 122 87375
	C572	100uF., 50V, Electrolytic	4835 124 47563
	C573	2200pF., 10%, 50V, Ceramic	4835 122 87524
	C580	100pF., 5%, 50V, Ceramic	4835 122 87025
	C584	50V, 0.47uF., Polyester	3198 014 04740
	C585	3.3uF., 5%, 50V, Polyester	4835 121 47516
	C586	0.022uF., 10%, 100V, Polyester	4835 121 47627
	C587	680pF., 5%, 50V, Ceramic	4835 122 87019
	C588	0.01uF., 10%, 50V, Ceramic	4835 122 87042
	C800	1uF., 50V, Electrolytic	4835 121 47406
	C801	0.1uF., 50V, Ceramic	4835 122 87375
	C805	0.1uF., 250V, Polyester	4835 121 47629
	C806	1000pF., 500V, Ceramic	4835 122 47384
	C807	0.1uF., 50V, Ceramic	4835 122 87375
	C808	680pF., 10%, 500V, Ceramic	4835 122 47035
	C809	0.1uF., 250V, Polyester	4835 121 47278
	C810	470uF., 200V, Electrolytic	4835 124 47673
S	C811	330pF., 20%, 2kV, Ceramic	4835 122 47058
	C814	47uF., 315V, Electrolytic	4835 124 47482
	C815	1000pF., 500V, Ceramic	4835 122 47384
	C817	0.011uF., 1.6kV, Polyprop	4835 121 47612
	C818	560pF., 10%, 500V, Ceramic	4835 122 47212
	C819	0.039uF., 630V, Polypropylene	4835 121 47638
	C820	4.7uF., 100V, Polyester	4835 121 47633
	C822	0.43uF., 250V, Polypropylene	4835 121 47607
	C824	1000pF., 500V, Ceramic	4835 122 47384
	C826	100uF., 50V, Electrolytic	4835 124 47563
	C900	220uF., 16V, Electrolytic	4835 124 47494
	C901	3300pF., 5%, 50V, Ceramic	4835 122 87447
	C902	680pF., 5%, 50V, Ceramic	3198 016 06810
	C903	1uF., 50V, Electrolytic	4835 121 47406
	C904	0.01uF., 10%, 50V, Ceramic	4835 122 87042
	C905	0.1uF., 10%, 50V, Ceramic	4835 122 87061
	C906	0.01uF., 10%, 50V, Ceramic	4835 122 87042
	C907	0.015uF., 10%, 50V, Ceramic	4835 122 87063
	C908	15pF., 10%, 500V, Ceramic	4835 122 47455
	C909	330pF., 10%, 500V, Ceramic	4835 122 47648
	C910	0.047uF., 10%, 100V, Polyester	4835 121 47081
	C911	4.7uF., 50V, Electrolytic	4835 124 47506
S	C913	1000uF., 16V, Electrolytic	4835 124 47699
	C914	470uF., 200V, Electrolytic	4835 124 47673
S	C915	6800pF., 1.6kV, Polypropylene	4835 121 47637
S	C916	6800pF., 10%, 50V, Polyester	2020 300 90571
	C917	0.1uF., 250V, Polyester	4835 121 47278
	C918	2.2uF., 50V, Electrolytic	4835 124 47502
	C919	0.12uF., 100V, Polyester	4835 121 47425
	C920	4.7uF., 50V, Electrolytic	4835 124 47506
	C921	100uF., 25V, Electrolytic	4835 124 47501
	C922	470uF., 25V, Electrolytic	4835 121 47405
	C923	1000pF., 10%, 50V, Ceramic	4835 122 87041
S	C924	820pF., 10%, 2kV, Ceramic	4835 122 57004
	C927	1uF., 50V, Electrolytic	4835 121 47406
	C928	0.33uF., 50V, Electrolytic	4835 124 47525
	C929	330pF., 10%, 500V, Ceramic	4835 122 47648
	C930	1uF., 100V, Electrolytic	4835 124 47485
	C931	0.47uF., 5%, 100V, Polyester	4835 121 47364
	C932	0.1uF., 10%, 50V, Ceramic	4835 122 87061
	C933	330pF., 10%, 500V, Ceramic	4835 122 47033
	C2804	100uF., 50V, Electrolytic	4835 124 47563
	C2805	10uF., 50V, Electrolytic	4835 124 47499
	C2836	1000pF., 10%, 1kV, Ceramic	4835 122 47373
	C2837	10uF., 50V, Electrolytic	4835 124 47499
	C2838	1000pF., 10%, 1kV, Ceramic	4835 122 47373
	C2839	0.01uF., 20%, 2kV, Ceramic	4835 122 57002
	BRXX	0 ohm, "Chip" Jumper	4835 111 37019
S	R401	100k, 5%, 2W, Metal Oxide	4835 116 67264
S	R402	2k, 5%, 1/2W, Metal Film	4835 116 57703
S	R404	100 ohm, 5%, 10W, Wire Wound	4835 112 37032
S	R405	4.7 ohm, 1/2W, Metal Film	4835 116 57009
	R406	100 ohm, 5%, 1/4W, Carbon	4835 110 57247

S = Safety Part   Be sure to use exact replacement part.

S	R407	0.1 ohm, 5%, 1W, Metal Film	4835 116 67179
S	R408	0.12 ohm, 5%, 1W, Metal Film	4835 116 67121
S	R409	10 ohm, 5%, 20W, Wire Wound	4835 112 47012
	R411	10 ohm, 5%, 1/2W, Metal Film	4835 116 67131
	R412	510 ohm, 5%, 1/4W, Carbon	4835 110 57179
S	R413	2k, 5%, 1/4W, Metal Film	4835 111 37029
S	R414	0.91 ohm, 5%, 1/2W, Metal Film	4835 116 57053
S	R415	100k, 5%, 2W, Metal Oxide	4835 116 67264
S	R416	15 ohm, 5%, 1/3W, Metal Film	4835 116 57064
	R417	10k, 5%, 1/8W, Metal Film	4835 111 37556
	R418	5.76k, 1%, 1/8W, Metal Film	4835 111 27064
	R419	22k, 5%, 1/8W, Metal Film	4835 111 37558
	R420	1.6k, 5%, 1/2W, Metal Film	2322 187 53162
	R421	390 ohm, 5%, 1/4W, Metal Film	4835 111 37095
	R422	100k, 5%, 1/4W, Metal Film	4835 111 37024
	R423	3.92k, 1%, 1/8W, Metal Film	4835 111 27063
	R424	18.2k, 1%, 1/8W, Metal Film	4835 116 57637
	R425	2.4k, 5%, 1/4W, Metal Film	2322 711 61242
	R426	100k, 1/2W, Metal Film	4835 116 57687
	R427	27k, 1/10W, Metal Film	4835 111 37442
	R428	24k, 5%, 1/10W, Metal Film	4835 111 37241
	R429	68k, 1/10W, Metal Film	4835 111 37273
S	R430	1k, 5%, 3W, Metal Film	4835 116 57242
	R431	10k, 1/2W, Metal Film	4835 116 57686
	R433	4.7k, 1/2W, Metal Film	4835 116 57724
	R438	33k, 1/10W, Metal Film	4835 111 37248
	R439	10k, 1/10W, Metal Film	4835 111 37216
	R440	10k, 1/10W, Metal Film	4835 111 37216
	R442	33k, 1/10W, Metal Film	4835 111 37248
	R443	100k, 1/10W, Metal Film	4835 111 37434
S	R444	100k, 5%, 1W, Metal Oxide	4835 116 67267
	R445	5.1k, 5%, 1/10W, Metal Film	4835 111 27086
	R446	10k, 1/2W, Metal Film	4835 116 57686
S	R447	100k, 5%, 1W, Metal Oxide	4835 116 67267
	R448	10k, 5%, 1/8W, Metal Film	4835 111 37556
S	R449	10 ohm, 1/2W, Metal Film	4835 116 57097
	R450	11.5k, 1%, 1/8W, Metal Film	4835 116 57636
	R451	1.82k, 1%, 1/10W, Metal Film	4835 111 27065
	R452	3.32k, 1%, 1/8W, Metal Film	4835 111 27062
S	R453	102k, 1%, 1/8W, Metal Film	4835 116 57389
	R454	2.67k, 1%, 1/8W, Metal Film	4835 111 27061
	R455	470 ohm, Control Adjust	4835 100 17039
	R456	510k, 5%, 1/2W, Metal Film	2322 187 53514
	R457	100 ohm, 1/2W, Metal Film	4835 116 57684
	R458	330 ohm, 1/2W, Metal Film	4835 116 57713
S	R466	0.12 ohm, 5%, 1W, Metal Film	4835 116 67121
	R469	1.5 ohm, 5%, 1/2W, Metal Film	4835 116 57755
S	R472	1.2k, 5%, 2W, Metal Film	4835 116 57357
S	R475	15 ohm, 5%, 2W, Metal Oxide	4835 116 67263
S	R476	100k, 5%, 2W, Metal Oxide	2322 194 73104
	R478	47k, 5%, 1/2W, Metal Film	4835 111 67001
	R483	27 ohm, 5%, 1/4W, Carbon Film	4835 110 57174
S	R484	2k, 5%, 1W, Metal Film	4835 116 67154
S	R485	2k, 5%, 1W, Metal Film	4835 116 67154
	R486	1k, 5%, 1/4W, Carbon Film	4835 110 57018
	R500	4.7k, 5%, 1/8W, Metal Film	4835 111 37559
	R501	10k, 5%, 1/8W, Metal Film	4835 111 37556
	R503	120k, 5%, 1/4W, Metal Film	4835 111 37055
	R504	120k, 5%, 1/2W, Metal Film	4835 116 57693
	R505	220 ohm, 5%, 1/4W, Metal Film	4835 111 37071
	R506	120k, 5%, 1/4W, Metal Film	4835 111 37055
	R507	62k, 5%, 1/4W, Metal Film	4835 111 37356
	R508	4.3k, 2%, 1/4W, Metal Film	4835 111 37498
	R510	470k, 1/10W, Metal Film	4835 111 37407
	R511	47k, 5%, 1/10W, Metal Film	4835 111 37445
	R512	10k, 5%, 1/8W, Metal Film	4835 111 37556
	R513	39k, 5%, 1/4W, Metal Film	4835 111 37097
	R514	10k, 5%, 1/8W, Metal Film	4835 111 37556
	R550	47k, 5%, 1/10W, Metal Film	4835 111 37445
	R554	1k, 5%, 1/10W, Metal Film	4822 051 10102
S	R555	1 ohm, 5%, 1W, Metal Oxide	4835 116 67268
	R558	100 ohm, 5%, 1/3W, Metal Film	4835 116 87002
S	R559	1k, 5%, 1W, Metal Oxide	4835 116 67266
S	R560	220 ohm, 1W, Metal Oxide	4835 116 57603
	R561	27k, 5%, 1/4W, Metal Film	4835 111 37033
	R562	24k, 5%, 1/4W, Metal Film	4835 111 37081
S	R564	1 ohm, 5%, 3W, Wire Wound	2122 251 01385
	R565	1k, 5%, 1/4W, Metal Film	4835 111 37022
	R570	470 ohm, 1/2W, Metal Film	4835 116 57723
	R571	1k, 1/2W, Metal Film	4835 116 57685
S	R572	1k, 5%, 1/10W, Metal Film	4822 051 10102
S	R573	750 ohm, 5%, 1W, Metal Film	4835 116 67016
	R578	470 ohm, 5%, 1/4W, Metal Film	4835 111 37104
	R581	2.2K, 5%, 1/2W, Metal Film	4835 110 47006
	R582	91k, 5%, 1/2W, Metal Film	2322 187 53913
	R583	18k, 5%, 1/4W, Metal Film	4835 111 37066
	R585	20k, 5%, 1/10W, Metal Film	4835 111 37313
	R586	10k, 1/10W, Metal Film	4835 111 37216
	R587	12k, 5%, 1/4W, Metal Film	4835 111 37025
	R588	47 ohm, 5%, 1/4W, Metal Film	4835 111 37107
	R589	47 ohm, 5%, 1/4W, Metal Film	4835 111 37107
	R800	470 ohm, 5%, 1/4W, Metal Film	4835 111 37104
	R801	47k, 5%, 1/4W, Metal Film	4835 111 37038
	R802	68k, 5%, 1/4W, Metal Film	4835 111 37118
	R803	100 ohm, 5%, 1/2W, Metal Film	4835 116 57552
	R805	100 ohm, 5%, 1/2W, Metal Film	4835 116 57552
	R806	1k, 20%, 1/2W, Carbon Comp.	4835 110 47215
	R807	300 ohm, 5%, 1/4W, Metal Film	4835 111 37085
	R808	2.2k, 5%, 1/2W, Carbon Film	4835 110 47083
	R809	270 ohm, 1/10W, Metal Film	4835 111 37424
S	R810	1.5k, 5%, 5W, Metal Film	4835 116 67218
S	R811	1.5k, 5%, 5W, Metal Film	4835 116 67218
	R812	68k, 5%, 1/4W, Metal Film	4835 111 37118
S	R813	1.5 ohm, 5%, 2W, Metal Film	4835 116 67217
	R814	33 ohm, 5%, 1/2W, Metal Film	4835 116 57366
	R815	0.27 ohm, 5%, 1/2W, Metal Film	4835 116 57112
S	R816	0.56 ohm, 5%, 1/2W, Metal Film	4835 116 67006
S	R817	470 ohm, 5%, 1/4W, Metal Film	4835 111 37104
	R821	560 ohm, 5%, 1/2W, Carbon	4835 111 57002
	R822	270 ohm, 5%, 1/2W, Carbon	4835 110 47113
	R823	68k, 5%, 1/4W, Metal Film	4835 111 37118
	R824	270 ohm, 5%, 1/2W, Carbon	4835 110 47113
S	R825	1 ohm, 5%, 1/2W, Metal Film	4835 116 57441
	R826	270 ohm, 5%, 1/2W, Carbon	4835 110 47113
	R827	68k, 5%, 1/4W, Metal Film	4835 111 37118
	R828	68k, 5%, 1/4W, Metal Film	4835 111 37118
	R829	15 ohm, 1/2W, Metal Film	4835 116 57699
S	R830	510 ohm, 5%, 1W, Metal Film	4835 116 67124
	R840	1M., 5%, 1/2W, Metal Film	4835 116 57764
S	R900	240 ohm, 5%, 1W, Metal Film	4835 116 57355
	R901	10k, Control Adjust	4835 100 17036
	R902	24k, 5%, 1/4W, Metal Film	4835 111 37081
	R904	3k, 5%, 1/4W, Metal Film	4835 111 37086
	R905	120k, 5%, 1/4W, Metal Film	4835 111 37055
	R906	1.5k, 5%, 1/4W, Metal Film	4835 111 37026
	R907	5.6k, 5%, 1/4W, Metal Film	4835 111 37112
	R908	1.5k, 1/10W, Metal Film	4835 111 37437
	R910	10k, 5%, 1/8W, Metal Film	4835 111 37556
	R911	30 ohm, 5%, 1/4W, Metal Film	4835 111 37354
	R912	10k, 5%, 1/8W, Metal Film	4835 111 37556
	R913	4.7k, 1/2W, Metal Film	4835 116 57724
	R914	47k, 5%, 1/4W, Metal Film	4835 111 37038
	R915	820 ohm, 5%, 1/4W, Metal Film	4835 111 37123
	R916	1k, 5%, 1/4W, Metal Film	4835 111 37022
	R917	1k, 5%, 1/4W, Metal Film	4835 111 37022
	R918	2k, 5%, 1/2W, Metal Film	4835 116 57703
	R919	3.6k, 5%, 1/4W, Metal Film	4835 111 37092
	R920	1k, 5%, 1/4W, Metal Film	4835 111 37022
	R921	18k, 5%, 1/4W, Metal Film	4835 111 37066
	R922	1.5k, 5%, 1/4W, Metal Film	4835 111 37026
	R923	15k, 1/2W, Metal Film	4835 116 57698
	R924	360 ohm, 5%, 1/4W, Metal Film	4835 111 37036
	R926	100 ohm, 5%, 1/4W, Metal Film	4835 111 37021
	R927	10k, 5%, 1/8W, Metal Film	4835 111 37556
	R928	2.2k, 2%, 1/8W, Metal Film	2322 730 31222
	R930	10k, 5%, 1/2W, Carbon Film	4835 110 47173
	R931	1 Meg, 5%, 1/4W, Metal Film	4835 111 37047
	R932	5.6k, 1/10W, Metal Film	4835 111 37376
	R933	1 Meg, 5%, 1/4W, Metal Film	4835 111 37047
S	R934	0.33 ohm, 5%, 1/2W, Metal Film	4835 116 57114
S	R937	33k, 1W, Metal Oxide	4835 116 67253
S	R938	30 ohm, 5%, 10W, Wire Wound	4835 112 37033
	R939	8060 ohm, 1%, 1/8W, Metal	4835 116 57597
S	R940	11.5k, 1%, 0.6W, Metal Film	4835 116 57612
	R941	110k, 5%, 1/2W, Carbon Comp.	4835 110 47193
S	R942	510k, 5%, 1/8W, Metal Film	4835 111 37266
	R943	2.2k, Control Adjust	4835 100 17047
S	R944	240 ohm, 2%, 1/8W, Carbon	4835 110 67204
	R945	680k, 5%, 1/4W, Metal Film	4835 111 37119
	R946	33k, 2%, 1/4W, Carbon Film	4835 110 57321
	R947	820 ohm, 5%, 1/4W, Metal Film	4835 111 37123
	R948	1k, 5%, 1/10W, Metal Film	4822 051 10102
	R949	620 ohm, 5%, 1/4W, Metal Film	4835 111 37114
	R951	10k, 1/2W, Metal Film	4835 116 57686
	R952	10 ohm, 5%, 1/4W, Metal Film	4835 111 37132
	R954	39k, 5%, 1/4W, Metal Film	4835 111 37097
	R955	33k, 5%, 1/2W, Carbon Film	4835 110 47172
	R956	100 ohm, 1/2W, Metal Film	4835 116 57684
	R957	1.5k, 5%, 1/4W, Metal Film	4835 111 37026
S	R958	39 ohm, 5%, 2W, Metal Oxide	4835 110 57065
	R959	1k, 20%, 1/2W, Carbon Comp.	4835 110 47215
	R960	100 ohm, 5%, 1/2W, Metal Film	4835 116 57552
S	R961	68 ohm, 5%, 1/3W, Metal Film	4835 116 57751
	R964	10 ohm, 20%, 1/2W, Carbon	4835 110 47164
	R965	1 Meg, 5%, 1/4W, Metal Film	4835 111 37047
	R967	470 ohm, 5%, 1/4W, Metal Film	4835 111 37104
	R968	20k, 5%, 1/4W, Metal Film	4835 111 37069
	R969	47K, 5%, 1/10W, Metal Film	4835 111 37445
	R970	10k, 1/10W, Metal Film	4835 111 37216
	R971	100k, 1/10W, Metal Film	4835 111 37434
	R975	100 ohm, 5%, 1/2W, Metal Film	4835 116 57552
S	R980	4.7k, 5%, 10W, Metal Oxide	4835 116 67272
	R2810	1.1k, 5%, 1/4W, Metal Film	4835 111 37051
	R2812	110k, 5%, 1/4W, Metal Film	4835 111 37052

S = Safety Part   Be sure to use exact replacement part.

	R2834	0.27 ohm, 5%, 1/2W, Metal Film	4835 116 57112
	R2835	3k, 5%, 1/2W, Metal Film	4835 116 57757
	R2836	270 ohm, 1/2W, Metal Film	4835 116 57709
	R2837	12k, 5%, 1/4W, Metal Film	4835 111 37025
	R2838	2.4k, 5%, 1/4W, Metal	2322 711 61242
S	R2839	300k, 5%, 3W, Metal Film	2322 195 73304
	D402	Diode BYV95C	4835 130 37052
	D403	Diode, Silicon MUR120	4835 130 37674
	D404	Diode BYV95C	4835 130 37052
	D405	Diode BAX18	4835 130 37933
	D406	Diode GBU6J	4835 130 37931
	D407	Diode, Silicon MUR120	4835 130 37674
	D409	Diode BAS216	4835 130 37905
	D416	Diode, Silicon	4835 130 37663
	D417	Diode MUR460	4835 130 37932
	D418	Diode, Silicon MUR460	4835 130 37488
	D419	Diode, Silicon	4835 130 37491
	D420	Diode BAX18	4835 130 37933
	D431	Diode BAX18	4835 130 37933
	D432	Diode 1N4150	4835 130 37934
	D433	Diode, Silicon	4835 130 37663
	D434	Diode, Silicon	4835 130 37663
	D501	Diode BAS216	4835 130 37905
	D502	Diode BAS216	4835 130 37905
	D503	Diode BAS216	4835 130 37905
	D504	Diode, Silicon BYD77D	4835 130 37497
	D505	Diode BAS216	4835 130 37905
	D550	Diode BYV95C	4835 130 37052
	D551	Diode BAS216	4835 130 37905
	D571	Diode BAS216	4835 130 37905
	D801	Diode BYD33J	4835 130 37094
	D802	Diode BYV95C	4835 130 37052
	D806	Diode BY228	4835 130 37166
	D808	Diode BYW95C	4835 130 37059
	D900	Diode BAS216	4835 130 37905
	D901	Diode 1N4148	4835 130 37048
	D902	Diode BY328	4835 130 37938
	D904	Diode BAX18	4835 130 37933
	D905	Diode BYD33J	4835 130 37094
	D906	Diode, Silicon MUR140	4835 130 37102
	D907	Diode, Silicon MUR140	4835 130 37102
	D908	Diode BYV95C	4835 130 37052
	D909	Diode BAV103	4835 130 37937
	D910	Diode BYW95C	4835 130 37059
	D911	Diode BAS216	4835 130 37905
	D2830	Diode BYD33M	4835 130 37012
S	IC400	IC LM393N, Dual Comparator	4835 209 87081
	IC401	IC, 6126640002	4835 209 87834
	IC402	IC, 6127710001	4835 209 87712
S	IC403	OPT CP CNX83A, Optoisolator	4835 209 88555
S	IC405	OPT CP CNW136.300	4835 209 88561
S	IC406	OPT CP CNX83A	4835 209 88555
	IC408	IC MC7805CT, Vertical Deflection	4835 209 88535
	IC550	IC TDA3654Q/N3	4835 209 17162
	IC551	IC TA8859CP, IIC Defl. Processor	4835 209 88565
	IC552	IC MC7812CT, 12V Regulator	4835 209 88554
	IC900	IC MC1391P, Horiz. Processor	9332 898 70682
	IC901	IC, 6126729002	4835 209 88011
	IC902	IC, 6128270001	4835 209 87838
	Q2830	Transistor, NPN	4835 130 47893
	C914	Transistor, BU2508DF	4835 532 47018
S	Q400	Transistor, BC847B	4822 130 60511
	Q401	N-Channel Power MOSFET	4835 130 47888
	Q402	Transistor, Standby Regulator	4835 130 47885
S	Q403	Transistor, BC847B	4822 130 60511
	Q404	Transistor, BC85	5322 130 60508
	Q442	Transistor, BU2508DF	4835 532 47018
	Q500	Transistor, BC85	5322 130 60508
	Q501	Transistor, BC85 H&V Dfl Fail-safe	5322 130 60508
	Q502	Transistor, BC847B	4822 130 60511
	Q503	Transistor, BC847B	4822 130 60511
	Q550	Transistor, PNP	4835 130 47084
	Q551	Transistor, BC847B	4822 130 60511
	Q800	Transistor, BC847B	4822 130 60511
	Q801	Transistor, 2SC2482, Horiz. Driver	4835 130 47073
	Q802	Transistor, 2SD2539	4835 130 48074
	Q803	Transistor, PNP, Hor. Pre-Driver	4835 130 47065
	Q900	Transistor, BC847B, Sync Pls. Inv.	4822 130 60511
	Q901	Transistor, BC85	5322 130 60508
	Q902	Transistor, SPS9397-1, Shutdown	4835 130 47091
	Q903	Transistor, BC85, Error Sig. Inv.	5322 130 60508
	Q904	Transistor, BC85, Soft Start	5322 130 60508
	Q906	Transistor, 2SD2539, HVOT	4835 130 48074
	Q907	Transistor, NPN, Beam Limiter	4835 130 47889
	Q908	Transistor, PNP Av Bm Cur. Lim.	4835 130 47891
	Z400	Zener Diode, BZX79B10	4835 130 37935
	Z500	Zener Diode, 10V	4835 130 37739
	Z501	Diode BZX79-B18	4835 130 37936
	Z503	Zener Diode, P6KE62A	4835 130 37547
	Z901	Zener Diode, 6.2V	4835 130 37751
	L401	Peaking Coil, 2.2uH. 10%	4835 157 57051
	L405	Peaking Coil, 2.2uH. 10%	4835 157 57051

S = Safety Part   Be sure to use exact replacement part.

	L407	Ferrite Bead	4835 526 17001
	L408	Suppression Coil, 10uH.	4835 152 27002
S	L409	Peaking Coil, 2.2uH.	4835 150 57054
	L410	Suppression Coil, 18uH.	4835 150 57051
	L412	Ferrite Bead	4835 526 17001
	L413	Suppression Coil, 10uH.	4835 152 27002
	L415	Suppression Coil, 1.8uH.	4835 152 27029
	L416	Ferrite Bead	4835 526 17001
	L420	Ferrite Bead	4835 526 17001
S	L421	Line Input Choke	4835 152 27028
	L422	Suppression Coil, 10uH.	4835 152 27002
	L423	Suppression Coil, 10uH.	4835 152 27002
	L424	Suppression Coil, 10uH.	4835 152 27002
	L425	Suppression Coil, 10uH.	4835 152 27002
	L426	Suppression Coil, 42uH.	4835 157 57063
	L427	Ferrite Bead	4835 526 17001
	L428	Suppression Coil, 42uH.	4835 157 57063
	L429	Ferrite Bead	4835 526 17001
	L430	Ferrite Bead	4835 526 17001
	L432	Suppression Coil, 10uH.	4835 152 27002
	L435	Suppression Coil, 10uH.	4835 152 27002
	L440	Suppression Coil, 10uH.	4835 152 27002
	L467	Line Choke	4835 157 57077
	L550	Suppression Coil, 10uH.	4835 152 27002
	L803	Coil, Choke	3121 218 31110
	L804	Linear Coil	0036 202 80026
	L805	Ferrite Bead	4835 526 17003
	L902	Coil, 22uH., 10%	4835 150 57052
	L903	Suppression Coil, 3.6uH.	4835 152 27001
	L905	Suppression Coil, 5.6uH., 10%	4835 152 27038
S	T401	Transformer, Switch Mode	4835 148 87339
S	T402	Transformer, Power	4835 148 87345
S	T800	Transformer, Horiz. Driver	4835 142 47021
S	T801	Transformer, Scan Power	4835 148 87318
S	T802	Transformer, Dynamic Focus	4835 142 47025
S	T900	Flyback Transformer	3128 138 20280
S	T901	Transformer, Horiz. Driver	4835 142 47022
S	F401	Fuse, 5A	4835 253 37022
S	F402	Fuse, 5A	4835 253 37021
S	F408	Fuse, 5A	4835 253 37021
S	F409	Fuse, 5A	4835 253 37021
	FB910	Ferrite Bead	4835 526 17002
	HS401	MM Heatsink	3135 011 00620
	HS401	Transistor, BU2508DF	4835 532 47018
	HS406	Heatsink, Vert.	0073 531 90006
	HS408	Heatsink, Transistor	0073 166 50008
	HS416	Heatsink, Transistor	0073 166 50008
	HS419	Heatsink, Diode	0073 562 10006
	HS433	Heatsink, Transistor	0073 166 50008
	HS434	Heatsink, Transistor	0073 166 50008
	HS550	Heatsink	0073 601 50001
	HS802	MM Heatsink LS BD	3135 011 00550
	HS802	Transistor, BU2508DF	4835 532 47018
	HS902	Heatsink	0073 525 60011
	HS906	Heatsink, Horiz.	0073 510 30012
	J401	4 Pin Connector, Yellow	0018 223 60004
	J402	7 Pin Connector, Yellow	0018 223 60007
	J403	7 Pin Board Connector	2422 025 14674
	J408	Contact Pin	3135 010 00470
	J467	7 Pin Connector	2422 025 15024
	J468	9 Pin Connector, Green	0018 223 80009
	J500	Contact Pin	3135 010 00470
	J501	Contact Pin	3135 010 00470
	J502	Contact Pin	3135 010 00470
	J511	Contact Pin	3135 010 00470
	J540	Contact Pin	3135 010 00470
	J601	7 Pin Board Connector	2422 025 14674
	Q401	Spring Clip f/Q401	4835 256 97316
	Q802	Spring Clip f/Q802	4835 256 97316
	Q906	Spring Clip f/Q906	4835 256 97316
S	SA401	Resistor, Surge Absorber	4835 116 67143

STEREO SPREAD MODULE

STEREO SPREAD MODULE

00ATC669 CUSTOMER CONTROL ASSEMBLY

		00ATC669 CUSTOMER CONTROL ASSEMBLY	
		00ARR023 IR Receiver Panel	4835 219 77785
		00ASW129 Switch Assembly	4835 219 77786

ATC669, ATC670 & ATC671 CUST. CNTRL. ASSY

		ATC669, ATC670 & ATC671 CUST. CNTRL. ASSY	
		Crystal Assembly	3135 017 01951

00ARR023, 00ARR024 & 00A10699 IR RECEIVER PANEL

		00ARR023, 00ARR024 & 00A10699 IR RECEIVER PANEL	
	D301	Green LED	4835 130 97095
	D302	Red LED	4835 130 97096
	IR300	IR Receiver	4835 219 67061
	J302	5 Pin Board Connector	2422 038 00176

	J305	3 Pin Board Connector	2422 038 00175

00ASW129, 00ASW130 & 00ASW131 SWITCH ASSEMBLY

		00ASW129, 00ASW130 & 00ASW131 SWITCH ASSEMBLY	
	J300	7 Pin Board Connector	2422 025 14674
		Keypad	3135 013 02470

00706087 0001, 0002 OPTICAL ASSEMBLY

		00706087 0001, 0002 OPTICAL ASSEMBLY	
S		Deflection Yoke	2422 549 43801
		Focus Lead	3135 010 00730
S		Focus/Screen Control.	2322 460 90514
S		HV Anode Lead (3 used)	4835 321 27397
	B	Compression Spring (4 used)	3135 011 00610
S	E	CRT 180DLB22 (Blue)	4835 310 57408
S	E	CRT 180DLB22 (Green)	4835 310 57411
S	E	CRT 180DLB22 (Red) (HU)	4835 310 57409
	H	Seal, CRT	3135 013 02321
	I	Coolant (Enough to do 3 CRTs)	3135 010 02040
	K	Fill Plug	4835 432 17791
	L	Fill Plug Seal	4835 290 87147
	M	Diaphragm Cover	4835 432 17736
	O	Expansion Diaphragm	3135 013 01060
	P	Coupler Red & Blue 46" (0001)	4835 290 87153
	P	Coupler Red & Blue 54" (0002)	4835 290 87155
	P	Coupler, Green	4835 290 87152
	R	O-Ring Seal (Lens to Coupler)	4835 290 87141
	S	Lens, C-Element, Blue & Red	4835 381 47016
	S	Lens, C-Element, Green	4835 381 47019
	W	Lens, Main, Blue	4835 381 47017
	W	Lens, Main, Red & Green	4835 381 47022

S = Safety Part Be sure to use exact replacement part.